

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. Agency Use Only (Leave blank).		2. Report Date. August 1989		3. Report Type and Dates Covered.
4. Title and Subtitle. Environmental Variability at Site Alfa during the Broadband-87 Exercise			5. Funding Numbers. Program Element No. 63785N Project No. 00120 Task No. 430 Accession No. 9227D	
6. Author(s). Paul J. Bucca and Roger W. Meredith				
7. Performing Organization Name(s) and Address(es). Ocean Acoustics and Technology Directorate Naval Ocean Research and Development Activity Stennis Space Center, Mississippi 39529-5004			8. Performing Organization Report Number. NORDA Report 224	
9. Sponsoring/Monitoring Agency Name(s) and Address(es). Naval Air Systems Command Code 933A Washington, D.C. 20361			10. Sponsoring/Monitoring Agency Report Number. NORDA Report 224	
11. Supplementary Notes.				
12a. Distribution/Availability Statement. Approved for public release; distribution is unlimited. Naval Ocean Research and Development Activity, Stennis Space Center, Mississippi 39529-5004.			12b. Distribution Code.	
13. Abstract (Maximum 200 words). <p>The Broadband-87 acoustics exercise was the second in a series of at-sea efforts designed to characterize broadband propagation. This experiment was conducted in two areas of the North Atlantic Ocean during June 1987. Site Alfa, located at approximately 31°N, 76°W, or about 250 nmi east of the Georgia coast, was chosen for its acoustically bottom-limited conditions and characteristically stable oceanographic environment. Site Delta, located at 28°N, 67°W about 450 nmi to the southeast of Bermuda, represented an area in which the sound channel is unobstructed by the seafloor. This report documents the comprehensive set of environmental data taken at Site Alfa in support of the acoustic measurements. This data set includes 55 expendable bathythermographs, 7 expendable sound velocity probes, 4 conductivity-temperature-depth measurements, and 8 detailed wave spectra measurements.</p> <p>The oceanographic environment was, as predicted, basically very stable throughout the exercise despite its location in a cold-core eddy of the Gulf Stream. Thermometric satellite imagery collected during the exercise quantified the surface temperature within this eddy to be approximately 1°C cooler than the surrounding waters; however, this amount could not be ascertained from the exercise data because all measurements were collected within the feature. Fortunately, the measurements were conducted fully within the confines of the eddy, thereby precluding potentially marked variability resulting from acoustic propagation across dissimilar water masses. A 36-hour time series of temperature data collected during the exercise exhibited a maximum sound speed variation of approximately 6 m/sec in the area of the main thermocline below the "18°C" water layer. However, a 15-mile displacement over the duration of these measurements precluded an accurate interpretation of this variability.</p> <p>The most profound effect of the eddy on the conduct of the exercise was the extremely strong surface currents experienced. Expendable Current Profile measurements indicate that near-surface currents approaching 5.5 kt were present during the exercise. Plots and tabulations of all data collected during phase Alfa of Broadband-87 are contained in the appendices.</p>				
14. Subject Terms. 08/10, 14/03, 15/01			15. Number of Pages. 115	
			16. Price Code.	
17. Security Classification of Report. Unclassified	18. Security Classification of This Page. Unclassified	19. Security Classification of Abstract. Unclassified	20. Limitation of Abstract. None	



Naval Ocean Research and Development Activity.

July 1989

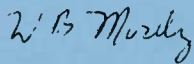
NORDA Report 224

Environmental Variability at Site Alfa during the Broadband-87 Exercise

Paul J. Bucca
Numerical Modeling Division
Ocean Acoustics and Technology Directorate
Roger W. Meredith
Ocean Acoustics Division
Ocean Acoustics and Technology Directorate

Foreword

The Broadband-87 exercise was the second in a series of ocean acoustic exercises sponsored by the Chief of Naval Operations. These exercises were designed to advance critical technologies in the antisubmarine warfare field. This multilaboratory effort, which took place in the western North Atlantic Ocean during June 1987, consisted of two phases. Phase Alfa took place about 250 nmi off the coast of Georgia; phase Delta was executed about 450 nmi southeast of Bermuda. The Naval Ocean Research and Development Activity (NORDA) was tasked by the Naval Air Systems Command (NAVAIR 933A) under the technical direction of the Naval Air Development Center (NADC) to collect a comprehensive set of environmental measurements aboard the R/V *NADC-38* to support the acoustic data analysis. In addition, NORDA analyzed the environmental data collected during phase Alfa to document any acoustically significant environmental features that existed during the conduct of the acoustic events. This report categorizes these findings and contains a compendium of all environmental data collected during phase Alfa.



W. B. Moseley
Technical Director


J. B. Tupaz, Captain, USN
Commanding Officer

Executive Summary

The Broadband-87 acoustics exercise was the second in a series of at-sea efforts designed to characterize broadband propagation. This experiment was conducted in two areas of the North Atlantic Ocean during June 1987. Site Alpha, located at approximately 31°N, 76°W or about 250 nmi east of the Georgia coast, was chosen for its acoustically bottom-limited conditions and characteristically stable oceanographic environment. Site Delta, located at 28°N, 67°W about 450 nmi to the southeast of Bermuda, represented an area in which the sound channel is unobstructed by the seafloor. This report documents the comprehensive set of environmental data taken at Site Alpha in support of the acoustic measurements. This data set includes 55 expendable bathythermographs, 7 expendable sound velocity probes, 4 conductivity-temperature-depth measurements, and 8 detailed wave spectra measurements.

The oceanographic environment was, as predicted, basically very stable throughout the exercise despite its location in a cold-core eddy of the Gulf Stream. Thermometric satellite imagery collected during the exercise quantified the surface temperature within this eddy to be approximately 1°C cooler than the surrounding waters; however, this amount could not be ascertained from the exercise data because all measurements were collected within the feature. Fortunately, the measurements were conducted fully within the confines of the eddy, thereby precluding potentially marked variability resulting from acoustic propagation across dissimilar water masses. A 36-hour time series of temperature data collected during the exercise exhibited a maximum sound speed variation of approximately 6 m/sec in the area of the main thermocline below the "18°C" water layer. However, a 15-mile displacement over the duration of these measurements precluded an accurate interpretation of this variability.

The most profound effect of the eddy on the conduct of the exercise was the extremely strong surface currents experienced. Expendable Current Profile measurements indicate that near-surface currents approaching 5.5 kt were present during the exercise. Plots and tabulations of all data collected during phase Alpha of Broadband-87 are contained in the appendices.

Acknowledgments

The authors wish to acknowledge the support of our sponsor, W. Parigian (NAVAIR 933A, Program Element 63785N), for making this effort possible. In addition, the technical guidance concerning the compilation of a relevant environmental measurement program and exercise organization provided by the exercise director, B. Steinberg of the Naval Air Development Center (NADC), is appreciated. The logistical support rendered by Dan Probert at the NADC field station, Key West, Florida, facilitated the installation of the equipment. In addition, we wish to acknowledge the excellent environmental data collection effort undertaken by Linda Petitpas and Matt Tattersol of the Naval Underwater Systems Center aboard the USNS *Lynch* and by Bruce Gomes and Cynthia Sellinger of NORDA's Numerical Modeling Division aboard R/V *NADC-38*. The aid provided by Jeff Hawkins of NORDA's Ocean Sensing and Prediction Division for acquiring, enhancing, and interpreting the satellite imagery of the exercise area is appreciated.

Contents

1.0	Introduction	1
2.0	Bathymetric Variability	1
3.0	Oceanographic Variability	1
3.1	Oceanographic Analysis	5
3.2	Sound Speed Variability during Exercise Events	6
3.3	Temporal Sound Speed Variability	11
4.0	Meteorological Variability	11
5.0	Wavetrack Measurements	11
6.0	References	17
	Appendix A. Oceanographic Data Plots	18
	Appendix B. Oceanographic Data Tabulations	21
	Appendix C. Expendable Current Profile Plots and Tabulations	23

Environmental Variability during the Broadband-87 Exercise

1.0 Introduction

The Broadband-87 acoustic exercise is the second in a series of exercises sponsored by the Chief of Naval Operations (CNO project K-1246-2) as part of the CNO Urgent ASW R&D Program (CUARP) for the primary purpose of enhancing the Navy's ASW detection capability through the exploitation of broadband acoustic sources. This exercise was a multilaboratory effort that took place during June 1987 at two sites located in the western North Atlantic Ocean. A pre-exercise environmental assessment was compiled and briefed prior to the exercise¹ for the purpose of assessing the effects of the environments in each exercise area on the acoustic sensors to be deployed. Details of the exercise execution can be found in the sea-test plan.² The participating Navy laboratories are the Naval Air Development Center (NADC), the Naval Ocean Research and Development Activity (NORDA), the Naval Ocean Systems Center (NOSC), the Naval Systems Weapons Center (NSWC), the Naval Undersea Systems Center (NUSC), and the Office of Naval Research (ONR). The Applied Physics Laboratory/University of Texas (APL/UT), the Marine Physics Laboratory (MPL) of the Scripps Institution of Oceanography, Ocean Data Systems, Inc. (ODSI), and C&M Technology were contracted to provide various exercise planning and execution support.

The location of exercise site Alfa is shown in Figure 1. Site Alfa, chosen for its location in relatively shallow water and characteristically benign oceanography, is centered at approximately 31°N, 76°W at the foot of the Blake Plateau about 250 nmi east of the coast of Georgia. Site Delta, the deep-water site, is located at 28°N, 67°W on the Bermuda Rise about 450 nmi to the southeast of Bermuda.

This report documents the environmental data collected in support of the acoustics effort at site Alfa and provides an analysis of the environmental variability that is pertinent to acoustic propagation. Environmental variables assessed in this document include a comprehensive investigation of the oceanographic variables of sound speed structure and currents during the six exercise

phases, as well as a detailed description of the meteorological variability. Appendices A, B, and C document plots and tabulations of all environmental data collected at site Alfa.

2.0 Bathymetric Variability

Prior to array implantment, *Lynch* executed a detailed near-site bathymetric survey to verify the seafloor depth as depicted on the available charts and to verify the bottom slope. Data from this survey were used to estimate the vertical placement of the hydrophones in the water column and to provide details for the ensuing array deployments. Figure 2 shows the bathymetric chart produced from this survey overlaid on the ship's track. All depths are in corrected meters. The black dot near the center of the area is the approximate position of the array implantments. The position of the center of the horizontal array is 30°59.43'N, 75°59.90'W and the position of the vertical array is 30°59.90'N, 76°00.2'W. Both arrays were implanted at a depth of 3408 m (a depth corrected for the integrated speed of sound in the water column). The bottom depths agreed to within 5 m of those shown on the planning charts examined prior to the exercise; the actual bottom slope, which deepened in a southwesterly direction, was 0.01°.

3.0 Oceanographic Variability

A comprehensive set of oceanographic measurements was taken by both surface platforms in support of the acoustic measurements. These measurements included conductivity-temperature-depth (CTD) casts, expendable bathythermograph (XBT) data, and expendable sound velocity (XSV) probes collected by both USNS *Lynch* and R/V *NADC-38*. Expendable current profile (XCP) and wavetrack information was collected aboard *Lynch*. Table 1 quantifies the oceanographic data collected in support of the site Alfa acoustic measurements and Figure 3 shows their locations.

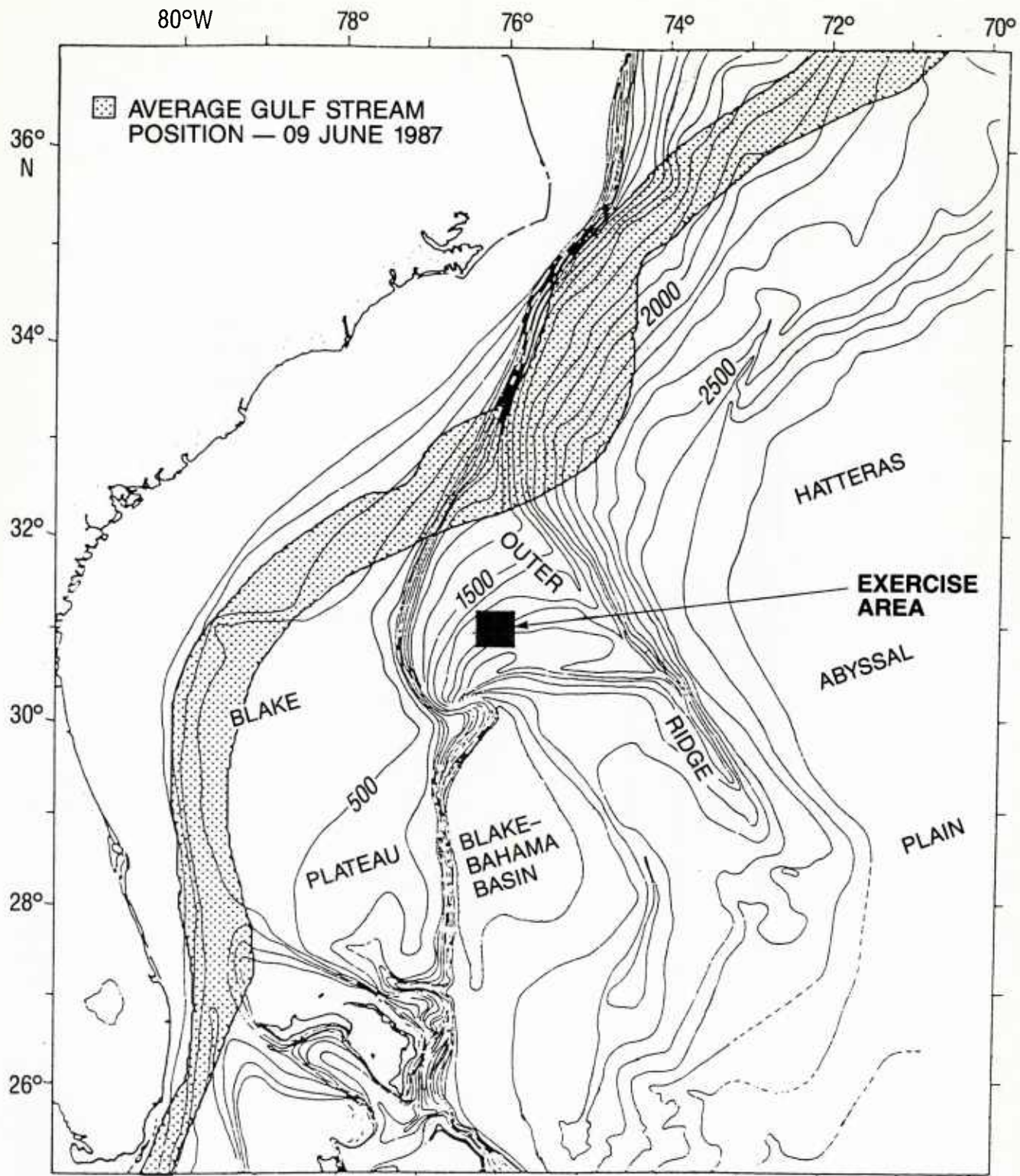


Figure 1. Exercise area location (depth in meters).

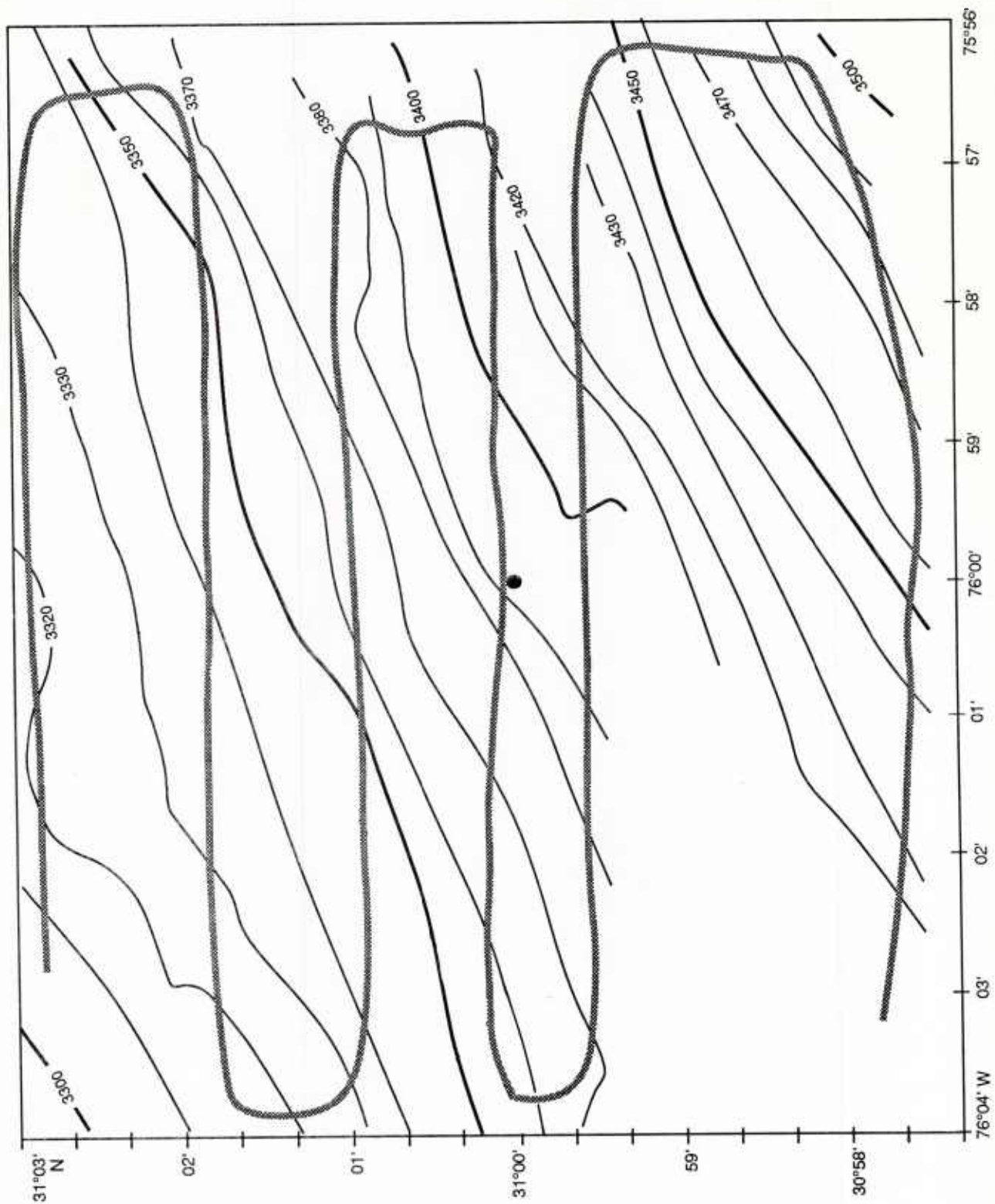


Figure 2. Bathymetric site survey chart (depth in corrected meters).

Table 1. Summary of site Alfa oceanographic data.

Platform	Measurement				
	CTD	XBT	XSV	XCP	Wavetracker
USNS <i>Lynch</i>	3	47	3	5	8
NADC-38	1	8	4		

The CTD system used aboard *Lynch* was an electromechanical Neil Brown MK III system, and a self-recording Ocean Data Equipment Model 302A system was used aboard NADC-38. XBTs and XSVs were recorded aboard both vessels using a Sippican MK IX recorder. The MK IX recorder on *Lynch* was retrofitted with an XCP data collection capability. The Model 956 Directional Wave-Track system, manufactured by ENDECO, is a tethered buoy

that responds to the surface velocity gradient caused by the orbital motions of the water particles. This buoy was deployed eight times; wave spectral data were collected for 15-minute periods. Instrument specifications are contained in Table 2.

3.1 Oceanographic Analysis

Oceanographically, the water column can be characterized by five water types. Variability in the surface waters during June is dominated primarily by benign meteorological events. Consequently, relatively shallow sonic layer depths are present. Below the near-surface layer at a depth of about 300 m is a retarded, or iso-velocity, sound speed gradient caused by the presence of a unique water mass. This water mass is formed between Bermuda and the south wall of the Gulf Stream during winter when cooling of the sea surface extends to depths

Table 2. Oceanographic sensor specifications.

<p>ODEC Model 302A CTD</p> <p><i>Conductivity</i> Measurement Range: 0-65 mS/sec Accuracy: ± 0.01 mS/sec</p> <p><i>Temperature</i> Measurement Range: -2°C to $+30^{\circ}\text{C}$ Accuracy: $\pm 0.01^{\circ}\text{C}$</p> <p><i>Depth</i> Measurement Range: 0 to 1000 m Accuracy: ± 0.2 m</p> <p><i>Salinity</i> Computed using Unesco 78 equation Measurement Range: 0 to 40 ppt Accuracy: ± 0.03 ppt</p>	<p>Model 956 Wave-Track Buoy</p> <p><i>Wave Height</i> Range: 15 m Resolution: 5.9 cm</p> <p><i>Wave Period</i> Range: 2 to 30 sec Resolution: 0.0001%</p> <p><i>Wave Direction</i> Range: 0 to 360° conventional Resolution: 1.4° (8 bits)</p> <p><i>Buoy Tilt Range</i> Range: $\pm 45^{\circ}$ per axis Resolution: 0.35°</p> <p><i>Transmitting Frequency</i> Range: 30 to 175 MHz</p>
<p>Neil Brown MK III CTD</p> <p><i>Conductivity</i> Measurement Range: 1-65 mS Accuracy: ± 0.0005 mS</p> <p><i>Temperature</i> Measurement Range: -3°C to $+32^{\circ}\text{C}$ Accuracy: $\pm 0.0005^{\circ}\text{C}$</p> <p><i>Pressure</i> Measurement Range: 0 to 6500 dB Accuracy: 0.1% FS</p>	<p>XBT Probe</p> <p><i>Depth Resolution</i>: 60 cm</p> <p><i>System Accuracy</i>: 0.25 m/sec</p> <p><i>Resolution</i>: 0.04 m/sec</p> <p><i>Range</i>: 1405 to 1560 m/sec</p>

in excess of 300 m.³ During spring and summer, a seasonal thermocline develops, but the identity of the winter surface layer is never entirely destroyed (i.e., the effects of summer warming does not extend as deep in the water column as the effects of winter cooling). This preserved lens of winter cooled water remains very near 18°C throughout the year; hence, the name "18°C water."

North Atlantic Central Water, present between the 18°C water lens and 2500 to 3000 m, is the resident water mass in the entire North Atlantic Ocean. The presence of a lens of highly diluted concentrations of Mediterranean Intermediate Water within the central water mass provides a relatively invariable deep sound channel axis of about 1200 m.⁴ The abyssal depths are occupied by the very stable North Atlantic Deep and Bottom Water mass.

The exercise area location (Fig. 1) was chosen, among other reasons, for its intermediate water depth and oceanographic stability. This classic stability, for the most part, was present during the exercise period. However, oceanographic conditions were complicated by the presence of a Gulf Stream cold-core eddy that was in the exercise area. An admixture of Gulf Stream and Sargasso Sea water surrounded this eddy, and it contained an entrapped parcel of water indigenous to the west side of the Gulf Stream, which is slightly cooler than the resident Sargasso water.

Figure 4 shows an interpretation of a satellite image taken from the NOAA-9 environmental satellite on 7 June 1987. This image, obtained from National Environmental Satellite Data and Information Service of the National Oceanic and Atmospheric Administration, was enhanced and interpreted by NORDA's Remote Sensing Branch. This analysis shows that, for the most part, the exercise area remained entirely inside the cold-core eddy during this period. Since oceanographic conditions within this eddy were relatively homogeneous, no acoustically significant sound speed variability resulted from its presence.

A comprehensive assessment of the geographical extent of this cold-core eddy during the entire exercise period is not possible, since only the image for 6 June was collected. However, oceanographic thermal analyses of this area were made on 4, 9, and 11 June 1987 as part of the Oceanographic Monthly Summary.⁵ These analyses indicate that the surface thermal signature of the eddy varied by only 1°C from the surrounding water masses. Surface thermal variability, as determined from all data collected during the exercise, varied by no more than 2°C. The correlation of satellite thermal analyses and the data set collected during the exercise is high,

considering the numerous different probes used to compile the measured thermal composite.

The greatest effect of the presence of this eddy in the exercise area was in the magnitude of the currents that were present. Plots and tabulations of current speed and direction as measured by XCP probes (shown in Appendix C) exhibit surface current velocities greater than 5 kt from a general direction of the west-southwest. A current in this direction which is resident in a cyclonic eddy would place the exercise area in the southeast quadrant of the eddy. All current profiles shown in Appendix C demonstrate that the strong current was surficial in nature and decayed very rapidly with depth. These current measurements reveal that the depth to which the cold-core feature extended was probably very shallow. The exact depth extent of this eddy, however, is uncertain, since the small thermal variability exhibited by this feature can be masked by other possible sources of thermal variability in the water column, such as internal wave activity. These currents were a major consideration when deploying and retrieving equipment and navigating the exercise baseline tracks during the exercise. The deformation caused by the rapid drift rate of deployed sonobuoy fields made it difficult to navigate through them with the sound source deployed aboard NADC-38.

3.2 Sound Speed Variability during Exercise Events

Since the exercise area was relatively small, it was, for the most part, located entirely within the cold-core eddy. Hence, during the period which Broadband-87 exercise area Alfa operations were conducted, sound speed variability was as benign as predicted.¹

Because sound speed variability during all exercise events were minimal, a detailed description of this change during each event is unnecessary. Figures 5 through 7 illustrate composites of those sound speed profiles collected during the period of each major exercise event. These sound speed profiles have been extended (indicated by the dashed lines) to 3500 m using *Lynch's* CTD 7. The actual sound speed profile that comes closest to the most typical of each exercise event, and which has the most compatible characteristics for a merge to the highly accurate deep data obtained with the Neil Brown CTD, is cited in Table 3, along with instructions for extending it to the sea floor.

This table can be used in conjunction with the tabulations of oceanographic data contained in Appendix B to compile the average sound speed profile in the entire water column for use in range-independent acoustic

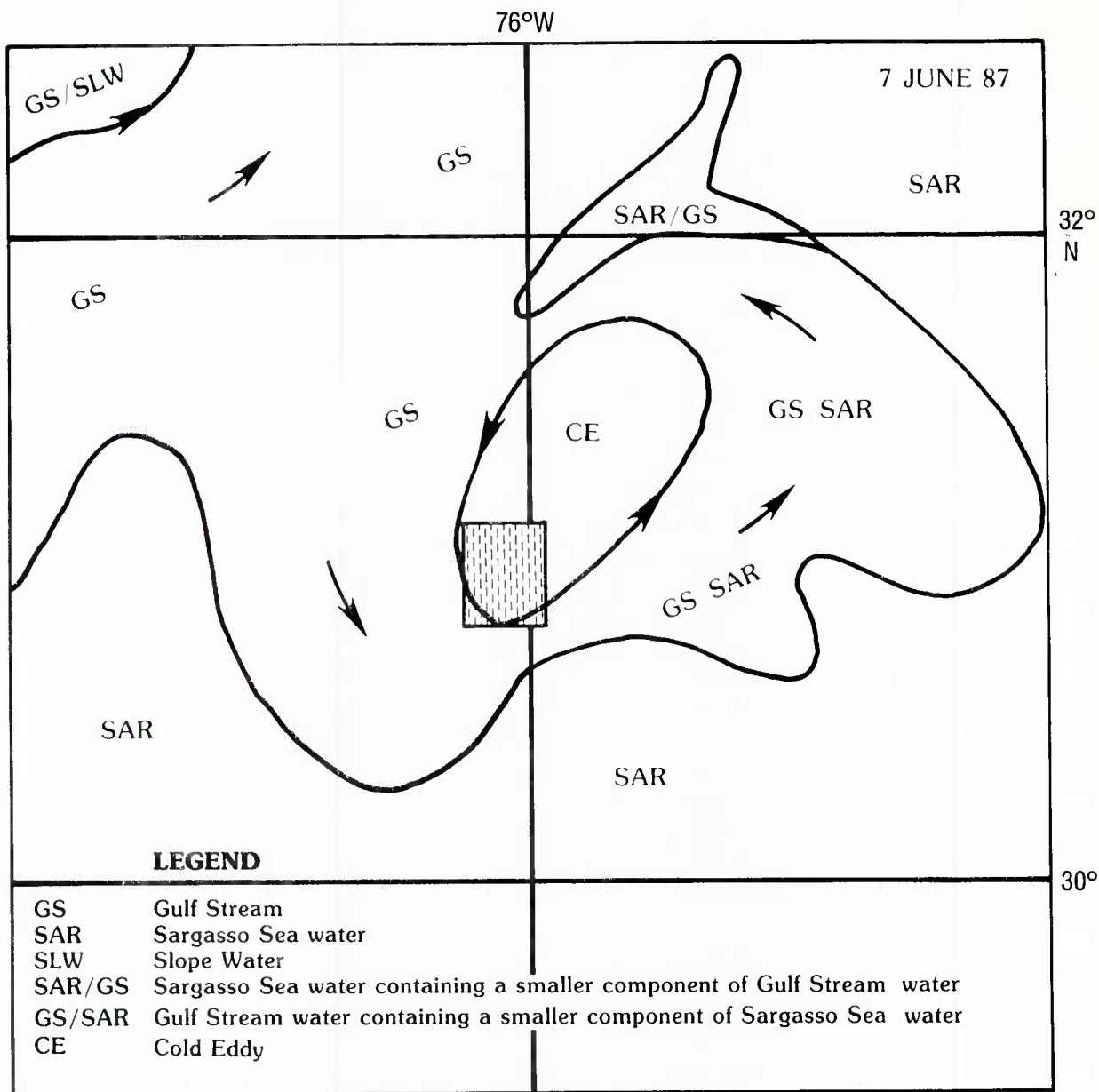


Figure 4. Pictorial of 7 June satellite image of exercise area.

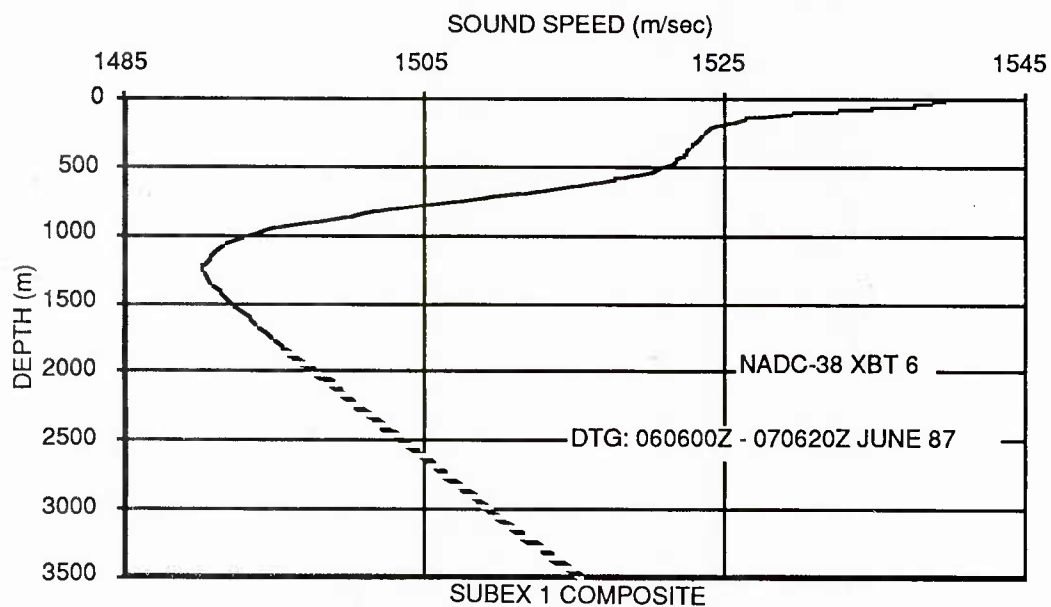
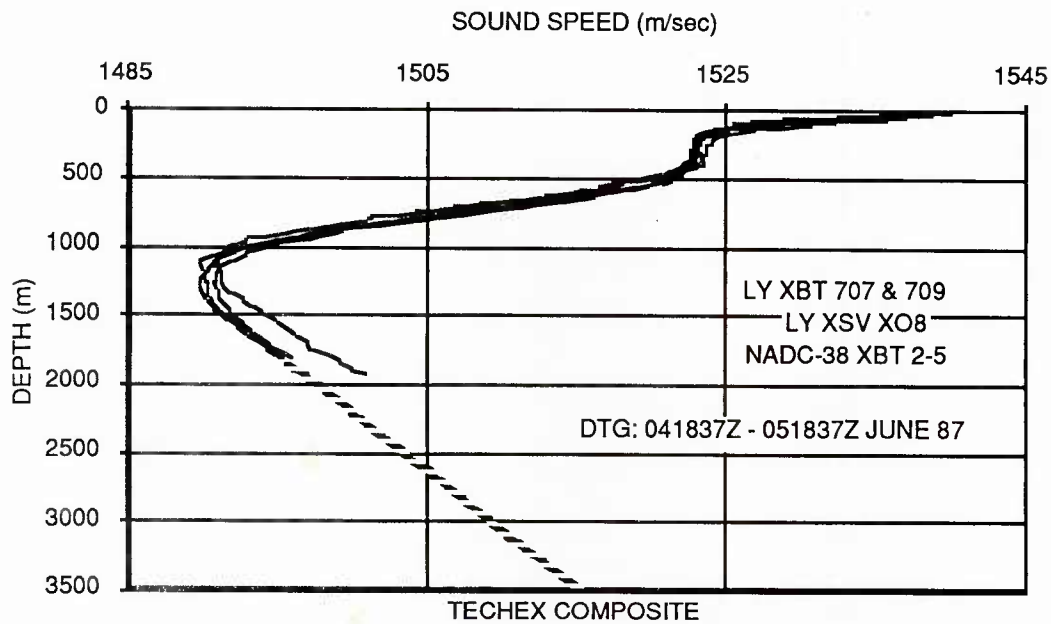


Figure 5. TECHEX and SUBEX 1 sound speed variability.

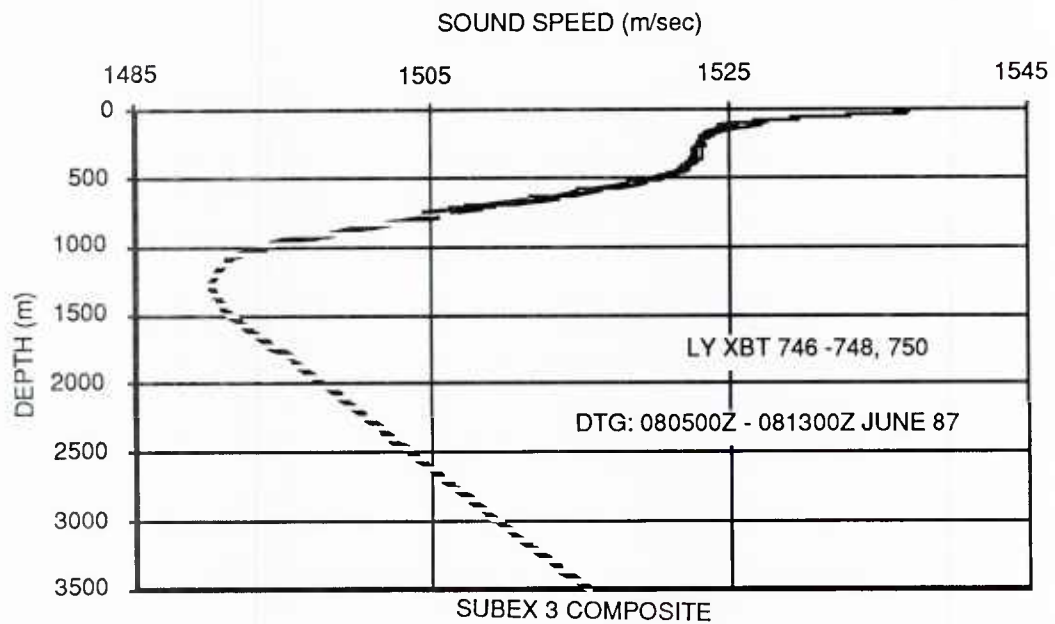
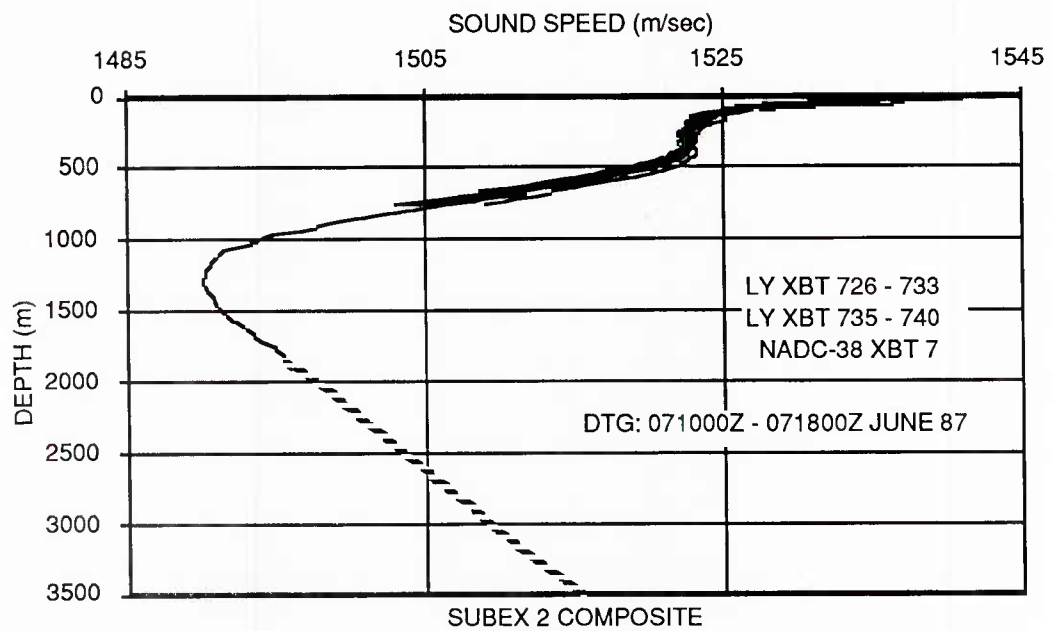


Figure 6. SUBEX 2 and 3 sound speed variability.

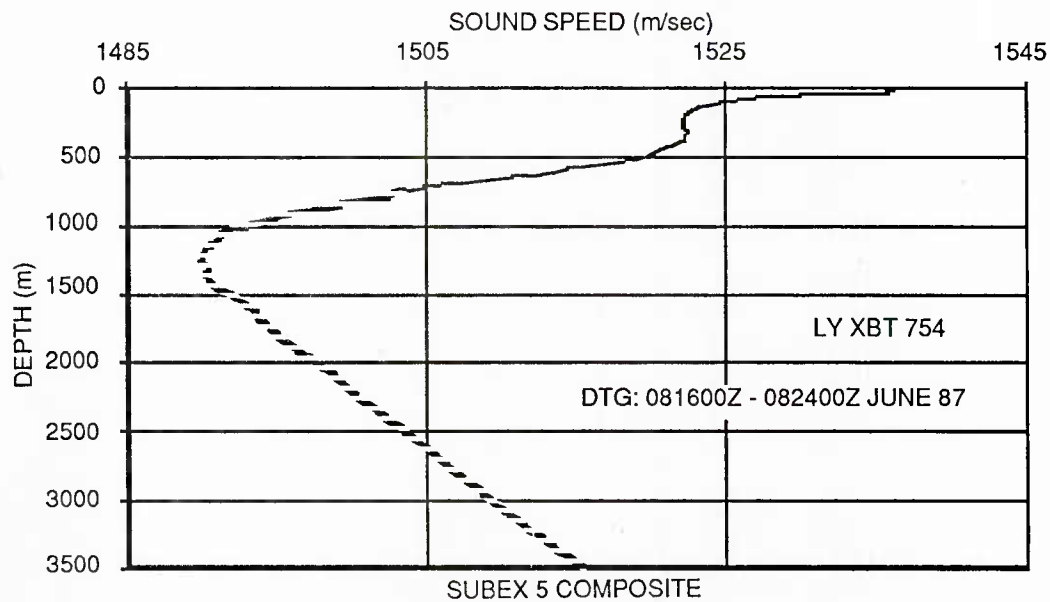
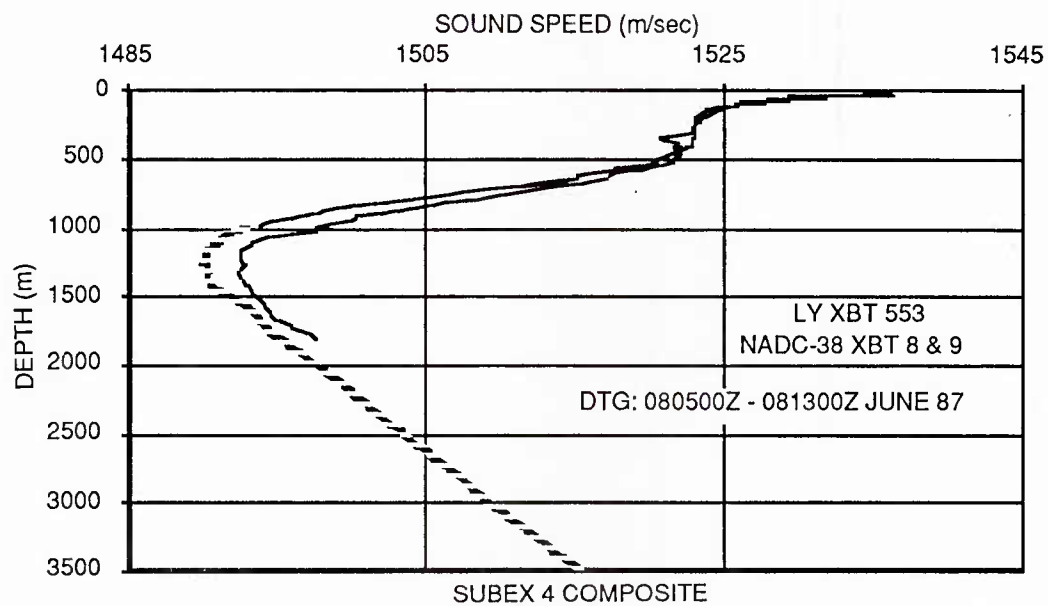


Figure 7. SUBEX 4 and 5 sound speed variability.

Table 3. Sound speed extension information.

Event	Instructions
TECHEX	Use NADC-38 XBT #5 to 1813.8 m, then extend with Lynch CTD 7 from 1850 to 3500 m.
SUBEX 1	Use NADC-38 XBT #6 to 1813.8 m, then extend with Lynch CTD 7 from 1850 to 3500 m.
SUBEX 2	Use NADC-38 XBT #6 to 1813.8 m then extend with Lynch CTD 7 from 1850 to 3500 m.
SUBEX 3	Use Lynch XBT #740 to 771.1 m, then NADC-38 XBT #7 to 1813.8, and Lynch CTD 7 from 1850 to 3500 m.
SUBEX 4	Use NADC-38 XBT #9 to 990.6 m, then Lynch CTD 7 from 1000 to 3500 m.
SUBEX 5	Use Lynch XBT #754 to 750 m, then 800 m = 1502.3, 850 m = 1499.1, 900 = 1496.8, 950 = 1494.6, then Lynch CTD 7 from 1000 to 3500 m.

models. Sound speed environments for range-dependent acoustic modeling may be compiled by accessing, in Appendix B, all sound speed profiles listed in each exercise phase composite. Individual profiles composited during any exercise phase in Figures 5 through 7 do not necessarily lie between the source and the receiver, but rather represent total variability sampled by both platforms during that particular period.

3.3 Temporal Sound Speed Variability

A close, temporally sampled XBT data set was taken aboard *Lynch* during the exercise for the purpose of assessing the effects of internal wave activity and other oceanographic phenomena characterized by short-term temporal variability. This time series commenced at 070400ZJun (XBT 714) and ended at 081603ZJun (XBT 754), a length of 36 hours. XBT data were collected at nominal half-hour intervals for the first 12 hours and at hourly intervals for the final 24 hours. Unfortunately, the effects of spatial variability may be present because the data comprising this time series were taken over a distance of approximately 15 nmi.

A composite of all sound speed profiles collected in this time series is shown in Figure 8. Even though this dataset may well contain the effects of spatial variability, the classic large-scale oceanographic stability of the exercise area is evident. Extreme sound speed variability in the main thermocline below the 18°C isovelocity layer is in the order of 6 m/sec. It is in this area of the water column where the presence of internal waves would be expected; however, it is impossible to attribute

this variability to any one causative agent, since the time series is contaminated with considerable geographic variability. Regardless, variability of this magnitude in the main thermocline could affect the convergence zone range, especially if the source and receiver are also at this depth.

4.0 Meteorological Variability

Meteorological conditions, shown in Figure 9, were recorded aboard *Lynch* at 2-hour intervals over the duration of the exercise. The wind speed/direction and barometric pressure data were recorded manually from standard shipboard sensors. Meteorological conditions throughout the exercise were characteristically benign. From 3 to 6 June, a weak low-pressure area formed, which was centered to the northeast of the exercise area off the coast of Virginia.⁶ This feature caused slightly elevated wind speeds and lower barometric pressure over the exercise region. As this low weakened and moved northward, the Azores-Bermuda high pressure system, centered at approximately 35°N, 35°W, bridged into the exercise area and predominated for the duration of the measurement period. This semipermanent feature precipitated slightly lower wind speeds, a change in wind direction, and a marked increase in barometric pressure.

5.0 Wavetrack Measurements

Eight sets of wave statistics were collected on 3, 5, 6 and 8 June using a tethered directional wavetrack system manufactured by ENDECO. This data covers a one-octave band from 0.03 to 0.3 Hz.

The ocean surface roughness is caused by the interference pattern of many different ocean waves when they are generated at different times and in different locations, and travel at different wave speeds in a dispersive medium. Two types of gravity waves, sea waves and swell, are present in the frequency region of these measurements.⁷ Sea waves are defined as waves that are still under the influence of the generating winds, and swells are waves that have traveled out of the influence of the generating winds. These waves do not respond instantaneously to local wind gusts or high wind speeds; as waves grow in height, they grow faster in length and may continue to grow in length after the wave height stops growing and after the generating wind subsides. The frequency spectra of these two wave types are generally separable at 0.1 Hz, since swell is lower than 0.1 Hz and sea is higher; however,

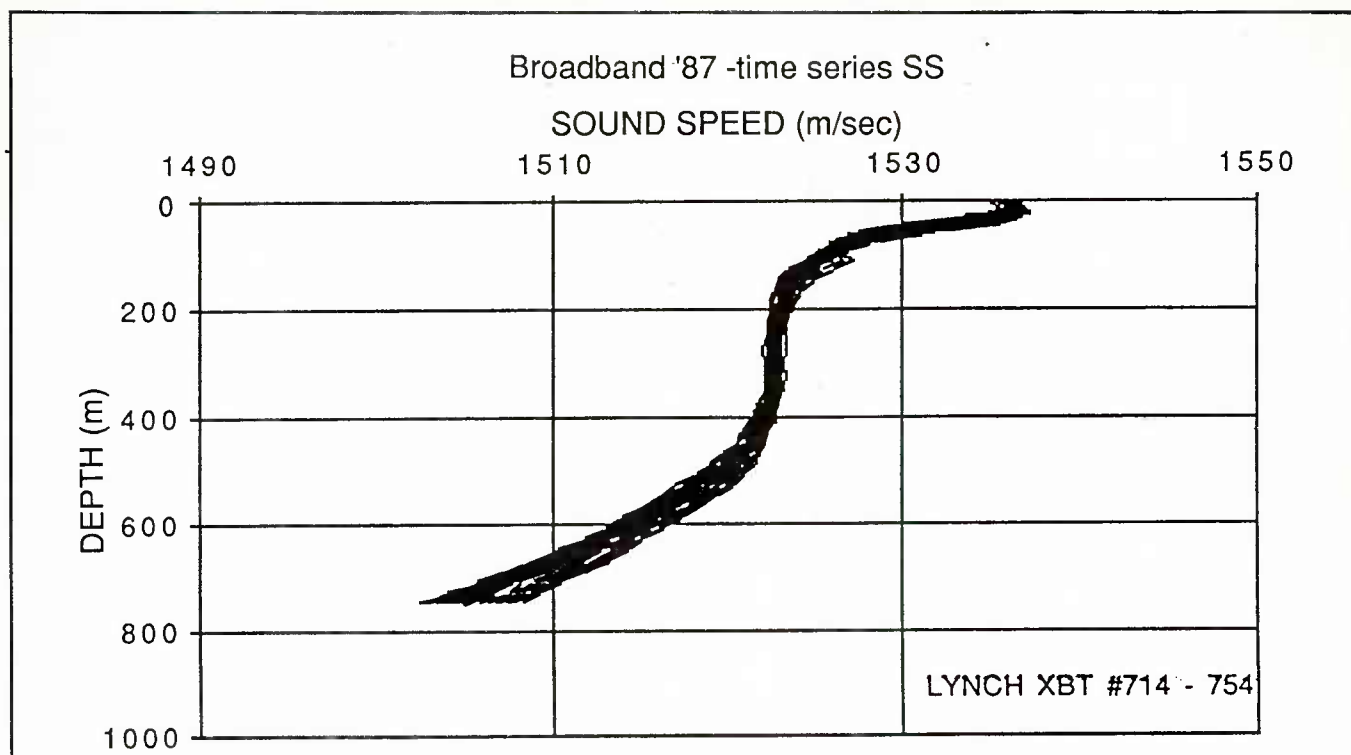


Figure 8. Time series composite.

considerable overlap exists. Hence, the primary source of ocean surface waves in the measured frequency range comes from the interaction of surface wind and gravity. These data are well above the frequencies corresponding to tidal forces and well below the frequencies associated with capillary waves for which the surface tension of the water must be considered.^{7,8}

Figures 10 and 11 present the spectral energy density and direction, respectively, of the eight wavetrack measurements and are separated into four plots, each of which contain two data sets. The four plots presented on each illustration span 4 days, and the data in each pair were taken within 60 minutes of each other, except for the first pair, which are 90 minutes apart. The surface winds throughout this 5-day period averaged 9 kt, and the wind direction traversed a 360° arc in a clockwise direction beginning from a southerly direction.

The first data pair show minimal wave energy in the measured frequency band, which indicates calm seas, low winds, and no dominant wave energy or direction. The second pair indicates a wave energy peak just below 0.1 Hz from a northerly direction and low energies at the higher end of the band. This energy peak demonstrates good agreement with that predicted in Reference 8. The meteorological data show low surface winds that gradually built and shifted from south to southwest before this data set was taken. The third pair of measurements

shows a wave energy increase throughout the octave band; a broader, smoother peak at 0.1 Hz; and a wind direction also from the north. The surface wind daily average is still below 10 kt, but before buoy deployment the winds had increased to 12 kt. The resulting increase in the wave energy is evident in the spectrum. The final pair shows that the higher frequencies have attenuated and the energy peak is sharper just below 0.1 Hz. Correspondingly, the surface winds have decreased and continued declining with an increasing barometric pressure, resulting in a dampening of the higher frequency waves. Omnidirectional characteristics of this peak were apparent as the surface wind direction continued to change. In general, the variability of the spectral distribution within each data pair are small, but there is significant variability in energy level, especially near relative maxima. The higher surface wave frequencies (0.2 - 0.3 Hz) are weak and generally from the north.

An oversimplistic model of the ocean surface can be derived assuming perfectly circular motions of the water molecules as the waves pass and assuming the ocean surface can be described by a single sinusoid. The wave speed, C_p , is given by

$$C_p = \frac{L}{T},$$

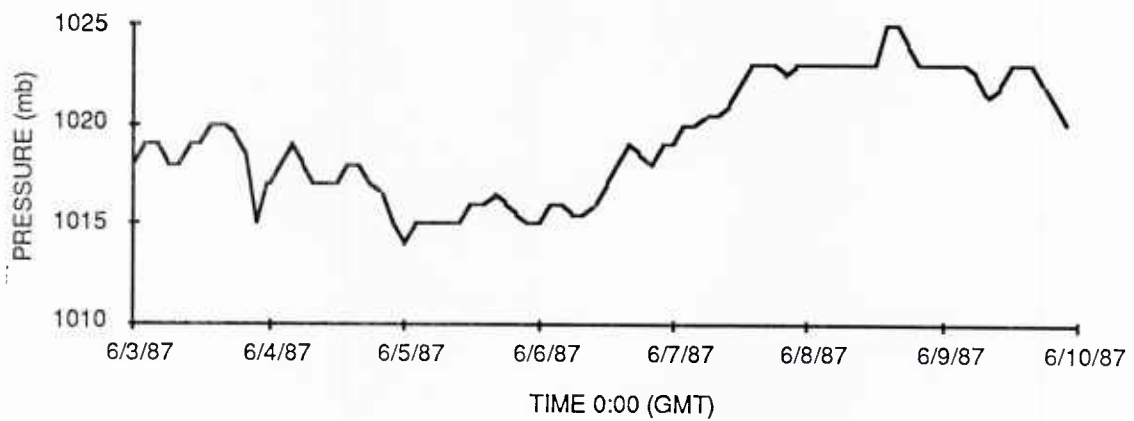
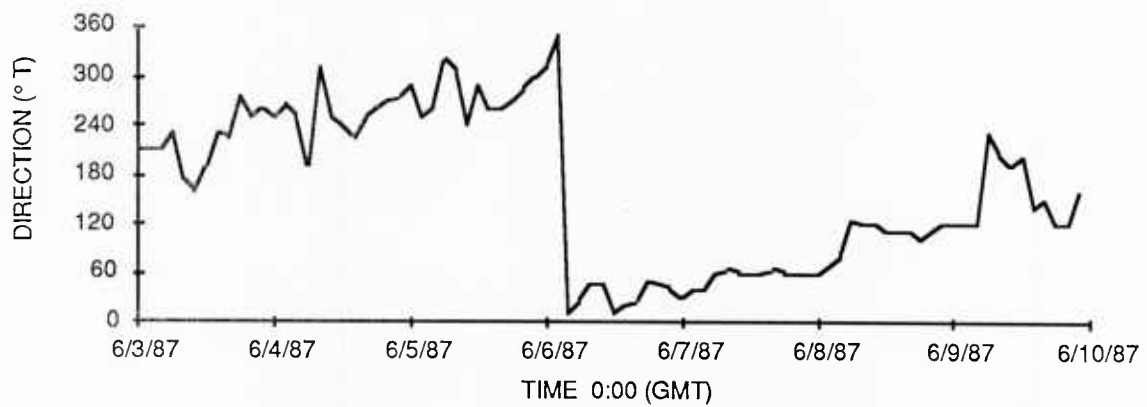
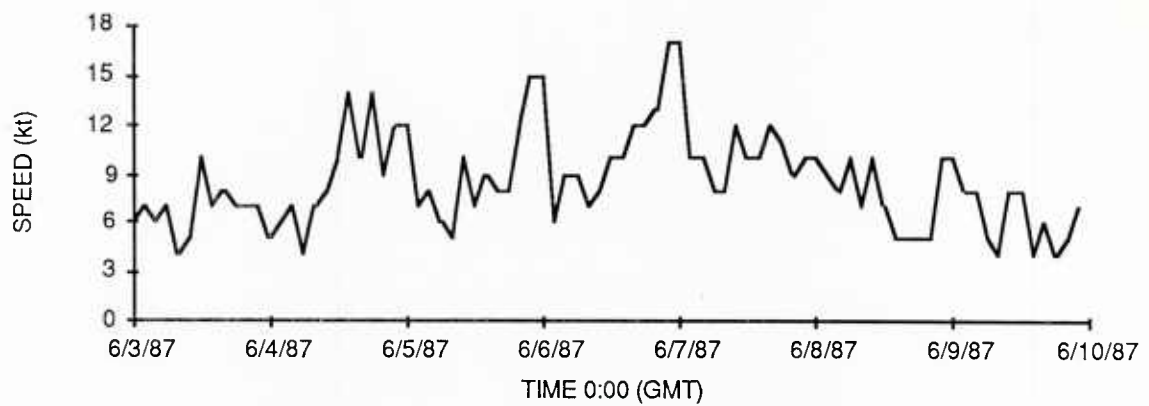


Figure 9. Meteorological variability observed aboard USNS Lynch.

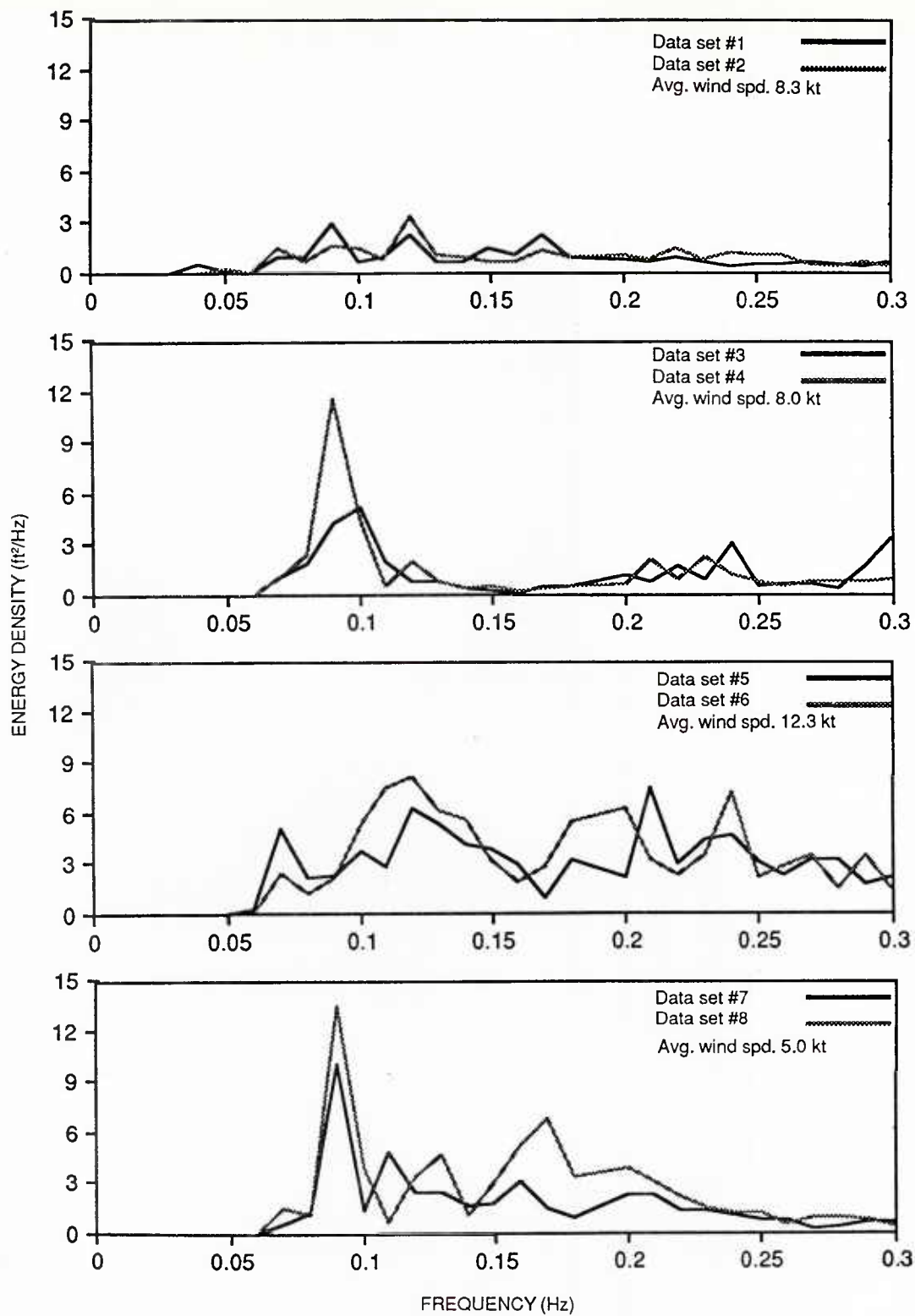


Figure 10. Sea surface energy density spectral analysis.

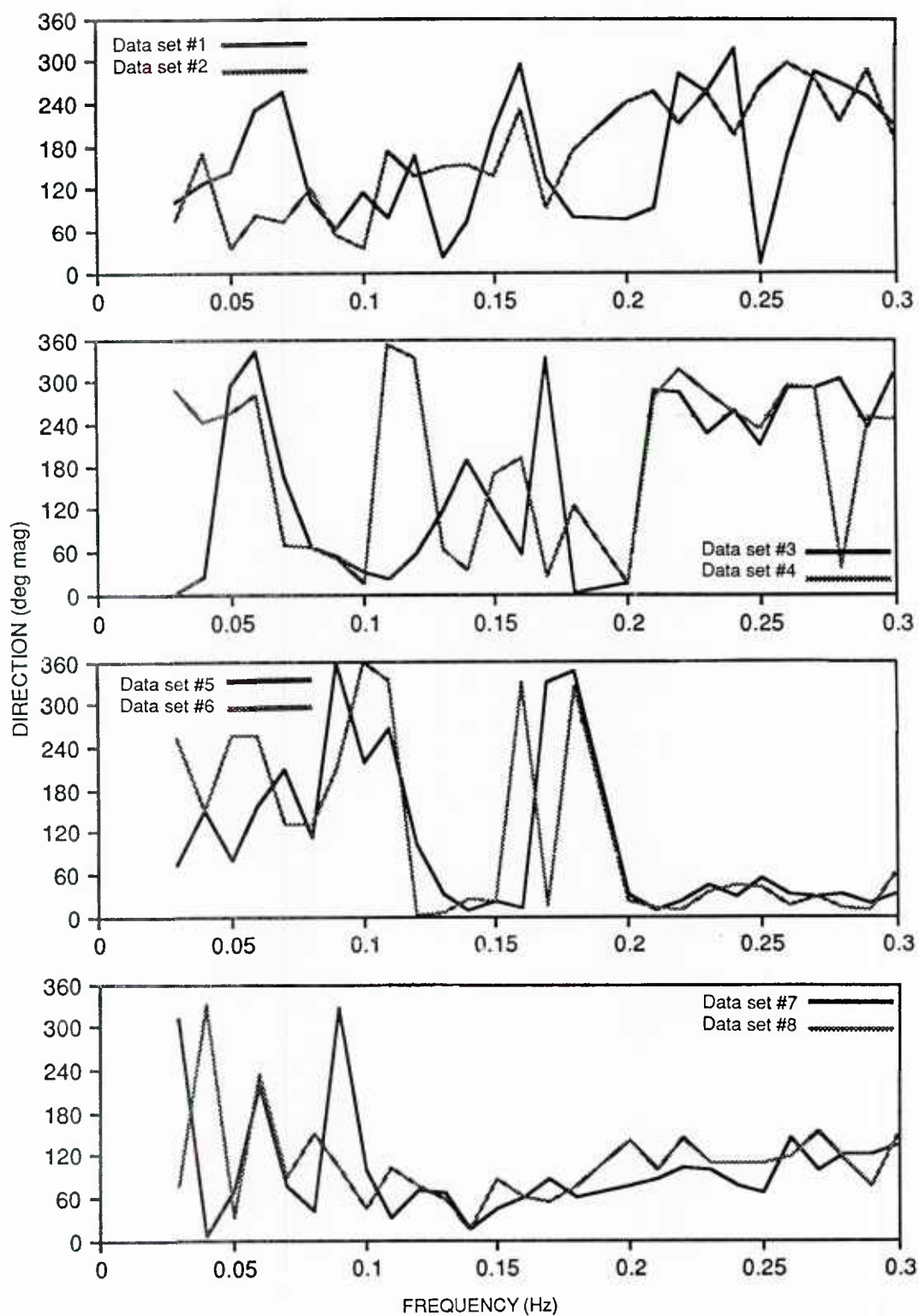


Figure 11. Sea surface direction spectral analysis.

where L is the distance between wave crests (wavelength), and T is the time between wave crests (wave period). The water particle speed, C_u , is given by

$$C_u = \frac{\pi H}{T},$$

where H = distance between wave peak and trough (waveheight). The wavelength is given by

$$L = \frac{g}{2\pi} T^2,$$

where g = acceleration of gravity.

Using this simplistic model with the buoy data for the peak below 0.1 Hz (Table 4), $T = 9.86$ sec, and $H = 4.46$ ft (1.4 m) from which $L = 150$ m, $C_u = 0.4$ m/sec and

$C_p = 15$ m/sec may be calculated. Acoustically, a surface is smooth if the surface displacement is small with respect to an acoustic wavelength. The Rayleigh criterion for a smooth surface is

$$H \sin \theta \ll \frac{\lambda}{8},$$

where θ is the grazing angle and λ is the acoustic wavelength. The acoustic loss, in dB, caused by reflection from a rough surface at small grazing angles, is given in Reference 9 as

$$A = -10 \log_{10} [1 - 0.0234 (fH)^{3/2}],$$

where f = frequency in kilohertz. Thus from the Wavetrack data the acoustic loss is <1 dB at frequencies less than 1000 Hz.

Table 4. Wavetrack wave spectral analysis statistics.

Wavetrack Data Set #	Begin Data Collection (Z)	Position (Lat/Long)	Sample Length (sec)
1	3/1348JUN87	31°00.06'N, 75°58'46"W	1024
2	3/1518JUN87	30°57'19"N, 76°02'02"W	1024
3	5/1456JUN87	30°55'12"N, 75°58'45"W	1024
4	5/1528JUN87	30°54'18"N, 75°58'55"W	1024
5	6/1814JUN87	30°51'49"N, 76°25'01"W	1024
6	6/1848JUN87	30°51'58"N, 76°24'11"W	1024
7	8/1740JUN87	30°57'44"N, 76°05'48"W	1024
8	8/1804JUN87	30°56'58"N, 76°05'58"W	1024

Wavetrack Data Set #	NBR Waves	Max Period (S)	Period of Max Height (S)	Max Height (ft)	Significant Period (S)	Significant Height (ft)	Mean Period (S)
1	123	12.8	8.8	2.9	5.8	2.8	4.1
2	184	25.8	4.5	3.7	6.8	2.3	4.9
3	98	17.5	9.8	4.1	7.4	2.4	5.1
4	97	13.5	11.5	3.7	7.2	2.5	5.2
5	99	15.5	9.8	5.6	5.8	3.9	5.1
6	82	18.0	18.0	5.8	8.0	4.1	6.2
7	189	11.5	10.0	4.3	6.8	2.6	4.6
8	102	13.0	6.5	5.6	6.6	3.1	4.9
Average	121.75	15.95	9.86	4.46	6.8	2.96	5.01

Wavetrack Data Set #	Mean Height (ft)	H 1/10 Period (S)	H 1/10 Height (ft)	Significant Height (1/3) (ft)	RMS Wave Height	Average Period (S)	Average Zero Crossing
1	1.3	6.8	2.4	1.9	1.3	6.3	5.8
2	1.5	7.3	3.8	2.8	1.4	5.9	5.6
3	1.6	8.6	3.8	2.2	1.5	6.1	5.5
4	1.7	9.4	3.3	2.4	1.7	9.4	3.3
5	2.6	7.2	4.8	3.9	2.8	6.2	5.6
6	2.9	8.8	4.9	3.8	2.7	5.7	5.4
7	1.6	8.2	3.4	2.7	1.9	6.7	6.2
8	2.0	7.0	3.9	3.3	2.3	6.5	6.1
Average	6.4	7.91	3.79	2.88	1.95	6.63	5.44

* = Spectral analysis statistics (all other data are zero crossing statistics)

6.0 References

1. Diloreto, A. G., B. Gomes, P. Bucca, E. White, and C. Sellinger (1988). *Broadband 87 Pre-exercise Environmental/Acoustic Assessment*. Naval Ocean Research and Development Activity, Stennis Space Center, MS. NORDA Report 218.
2. Naval Air Development Center (1987). Broadband 87 Seatest Plan. DSI-5669-C, Vol. I.
3. Worthington, L. V. (1959). The 18° Water in the Sargasso Sea. *Deep Sea Res.* 5: 297-305.
4. Fenner, D. F. and P. J. Bucca (1971). *The Sound Velocity Structure of the North Atlantic Ocean*. Naval Oceanographic Office, Stennis Space Center, MS, Informal Report no. 71-13.
5. McHugh, P., editor (1987). *Oceanographic Monthly Summary*. National Oceanic and Atmospheric Administration, National Weather Service, National Environmental Satellite Data and Information Service, Washington, D.C., v. 7, no. 4, June.
6. U.S. Department of Commerce (1987). *Mariners Weather Log*, 31(4): 37.
7. Kinsman, Blair (1965). *Wind Waves, Their Generation and Propagation on the Ocean Surface*. Prentice-Hall, New Jersey, Ch. 1 & 2.
8. Knauss, John A. (1978). *Introduction to Physical Oceanography*. Prentice-Hall, New Jersey, Ch. 10.
9. Marsh, H. W., M. Schulkin, and S. Kneale (1961). Scattering of Underwater Sound by the Sea Surface. *Jour. Acoust. Soc. Am.* 33:334.

Appendix A

Oceanographic Data Plots

Depths in Meters
Temperature in Degrees Celsius
Salinity in Parts Per Thousand
Sound Speed in Meters/Per Second

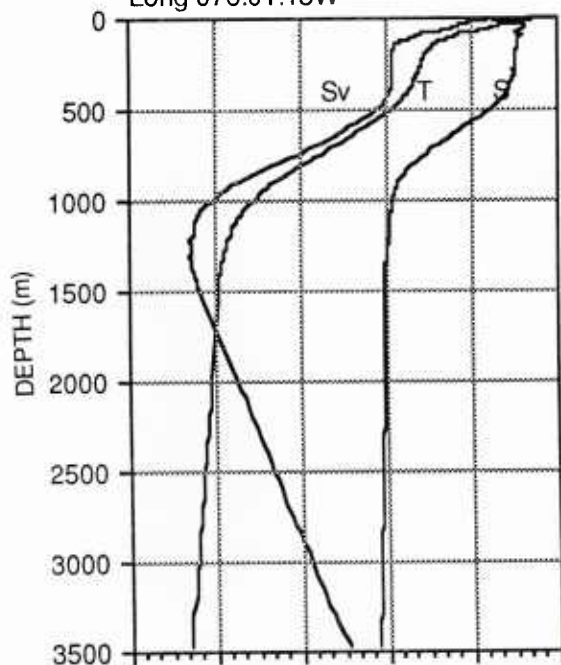
LYNCH CTD #1

June 3, 1987

Time: 0115 Z

Lat 30:57:56N

Long 076:01:18W



1480 1494 1508 1522 1536 1550 (m/s)
-2 4 10 16 22 28 (°C)
32 33 34 35 36 37 (ppt)

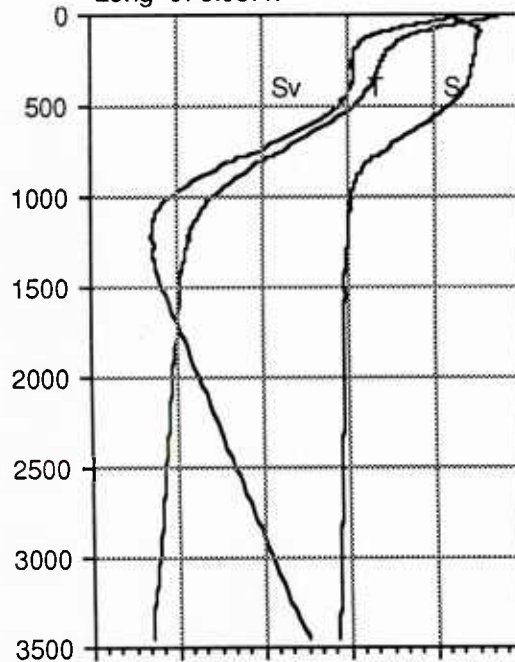
LYNCH CTD #4

June 4, 1987

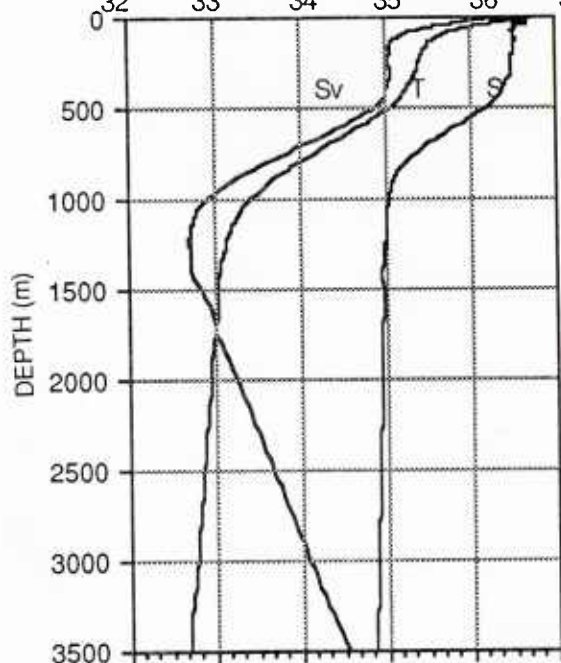
Time: 1547Z

Lat 30:57:58N

Long 076:03:47



1480 1494 1508 1522 1536 1550 (m/s)
-2 4 10 16 22 28 (°C)
32 33 34 35 36 37 (ppt)

**LYNCH CTD #7**

June 5, 1987

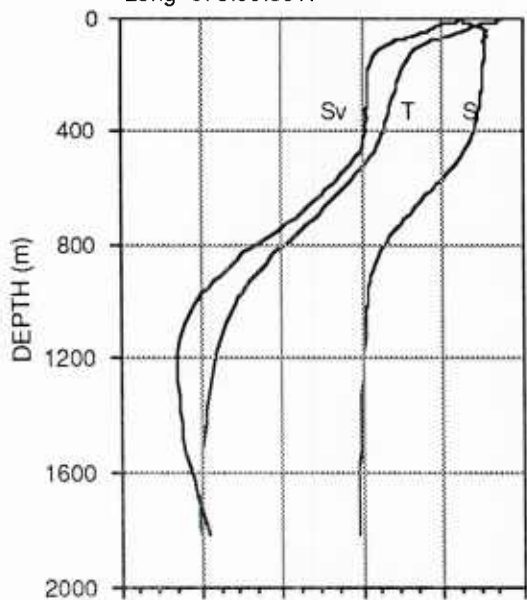
Time: 1618 Z

Lat 30:53:58N

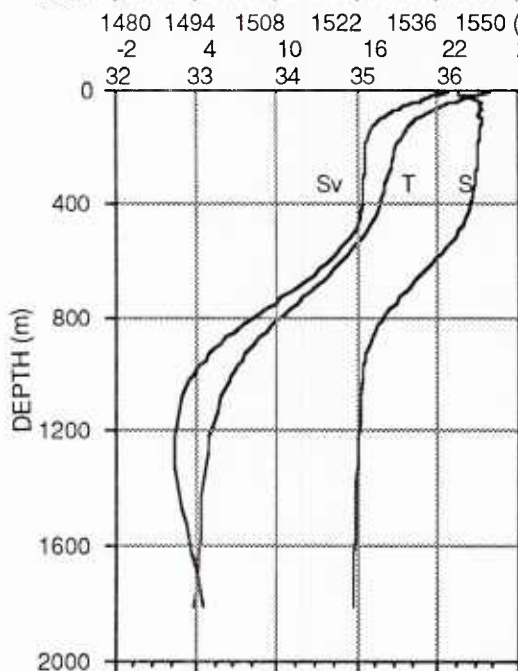
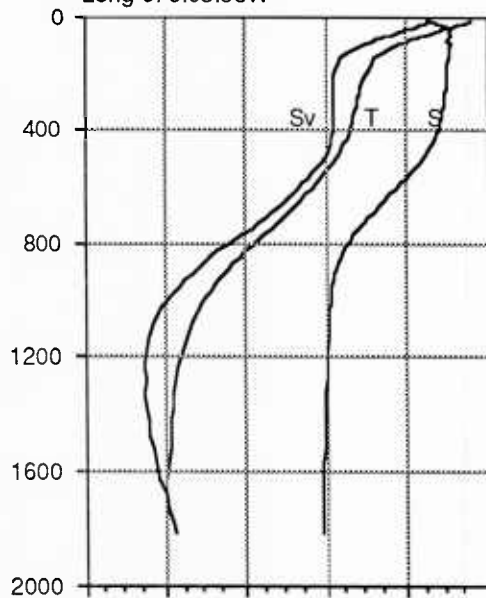
Long 075:59:17W

LYNCH XBT #502

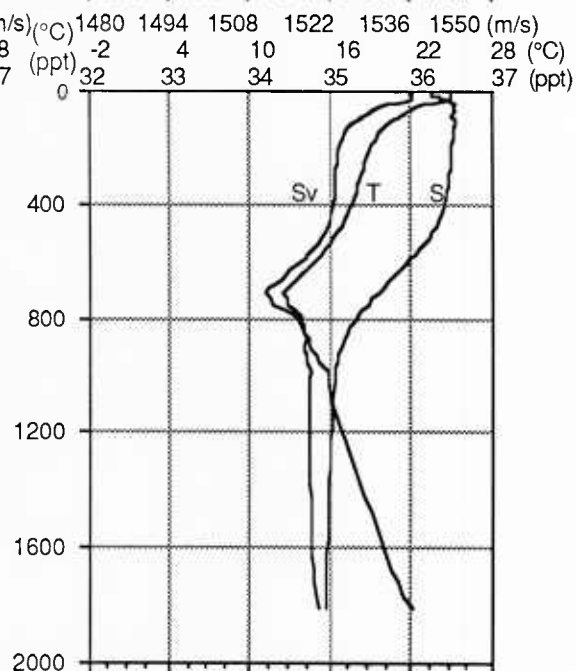
June 2, 1987
Time: 2345Z
Lat 30:59:19N
Long 075:59:39W

**LYNCH XBT #506**

June 4, 1987
Time: 1600Z
Lat 30:57:49N
Long 076:03:58W

**LYNCH XBT #510**

June 6, 1987
Time: 0000Z
Lat 30:55:14N
Long 075:59:56W

**LYNCH XBT #553**

June 8, 1987
Time: 0800Z
Lat 31:07:25N
Long 076:07:23W

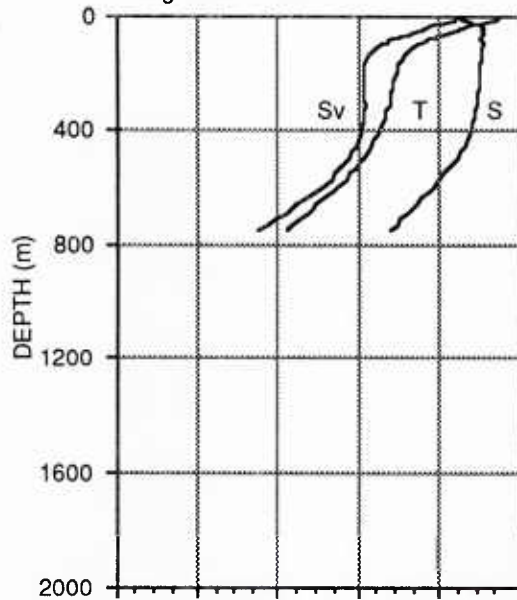
LYNCH XBT #703

June 3, 1987

Time: 0808Z

Lat 31:01:01N

Long 075:57:20W

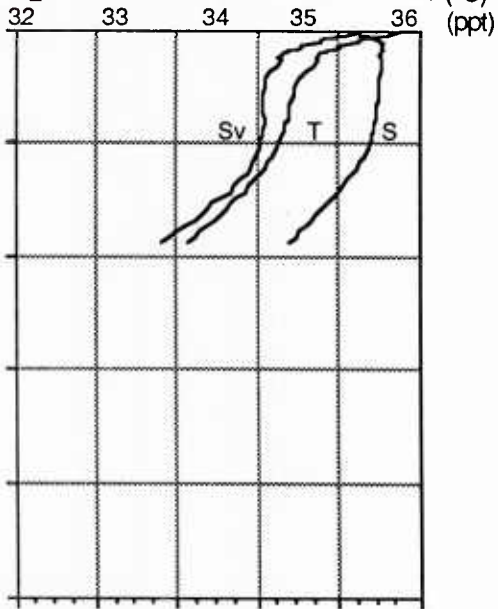
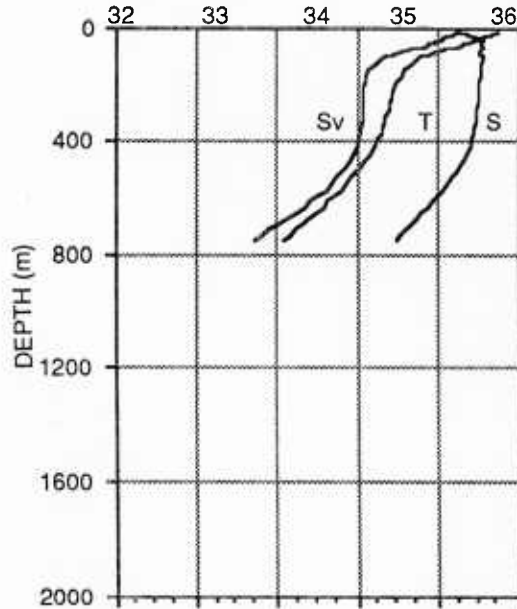
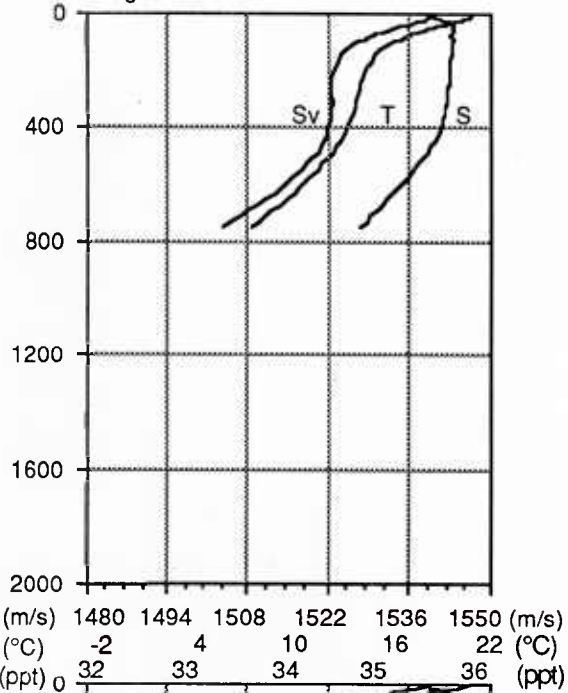
**LYNCH XBT #705**

June 4, 1987

Time: 1210Z

Lat 30:58:19N

Long 076:01:46W

**LYNCH XBT #707**

June 5, 1987

Time: 0000Z

Lat 30:55:45N

Long 076:03:16W

LYNCH XBT #709

June 5, 1987

Time: 1558Z

Lat 30:54:06N

Long 075:59:07W

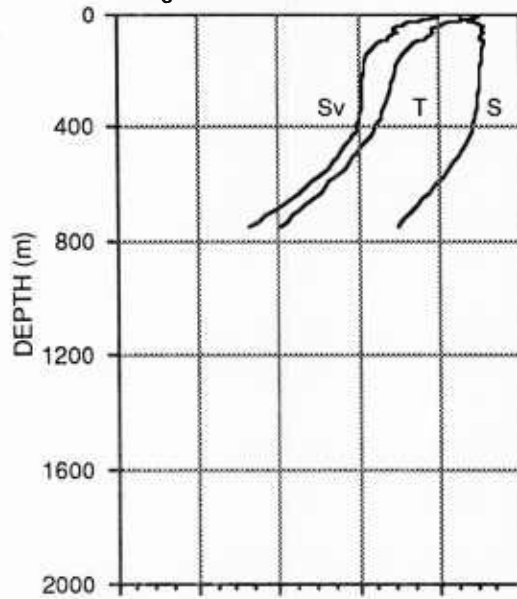
LYNCH XBT #711

June 6, 1987

Time: 0800Z

Lat 30:55:21N

Long 076:03:59W

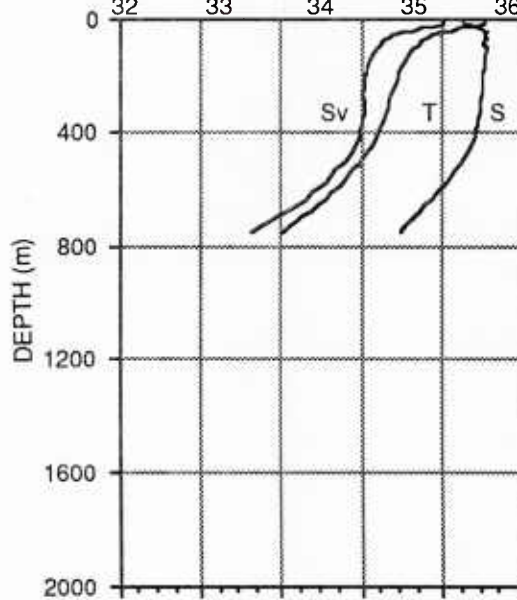
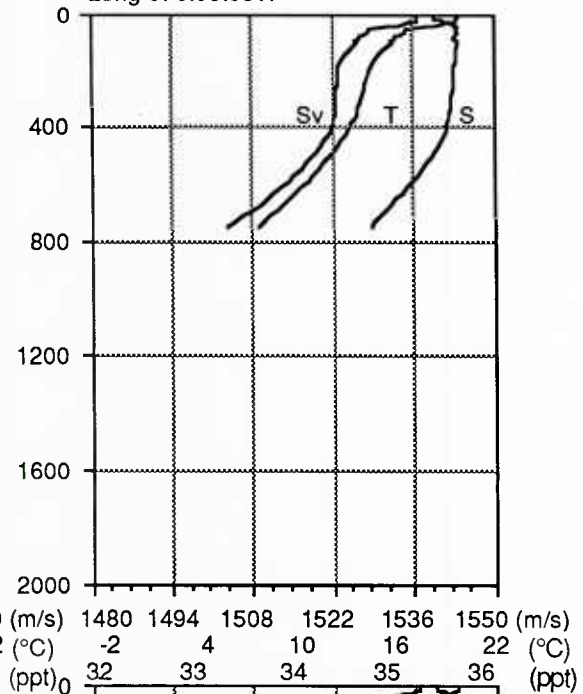
**LYNCH XBT #713**

June 7, 1987

Time: 0010Z

Lat 30:53:41N

Long 076:08:09W

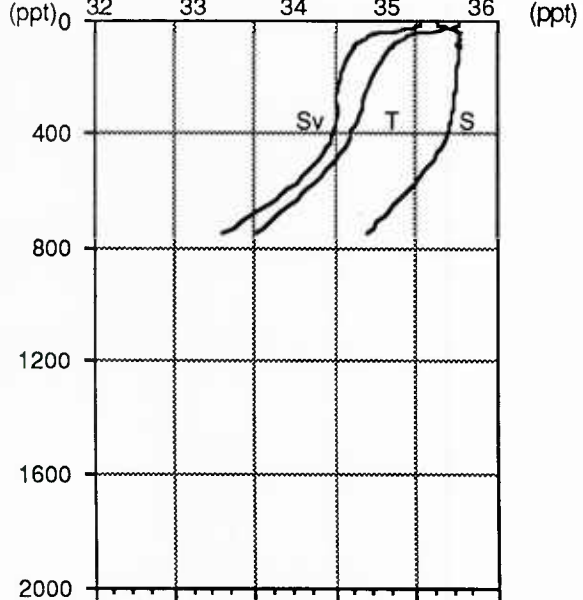
**LYNCH XBT #714**

June 7, 1987

Time: 0400Z

Lat 30:57:23N

Long 076:04:12W

**LYNCH XBT #715**

June 7, 1987

Time: 0430Z

Lat 30:57:22N

Long 076:06:38W

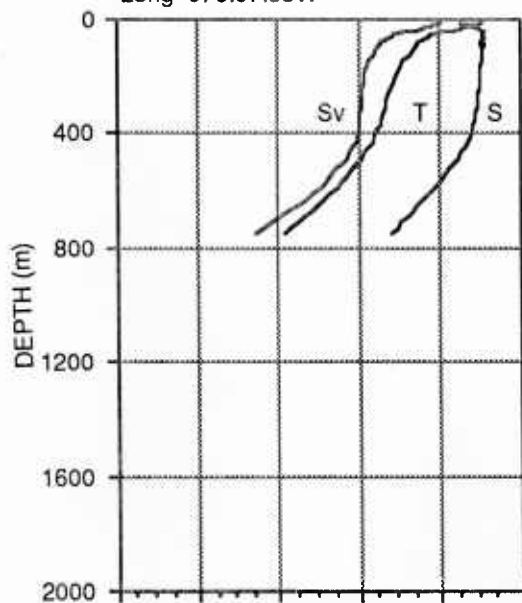
LYNCH XBT #716

June 7, 1987

Time: 0500Z

Lat 30:55:53N

Long 076:07:35W

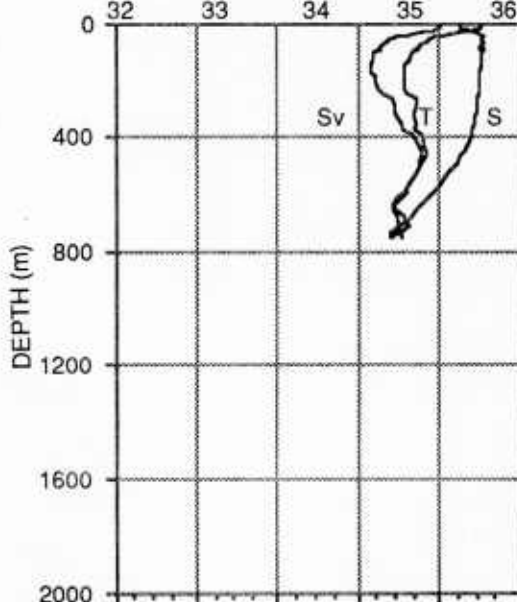
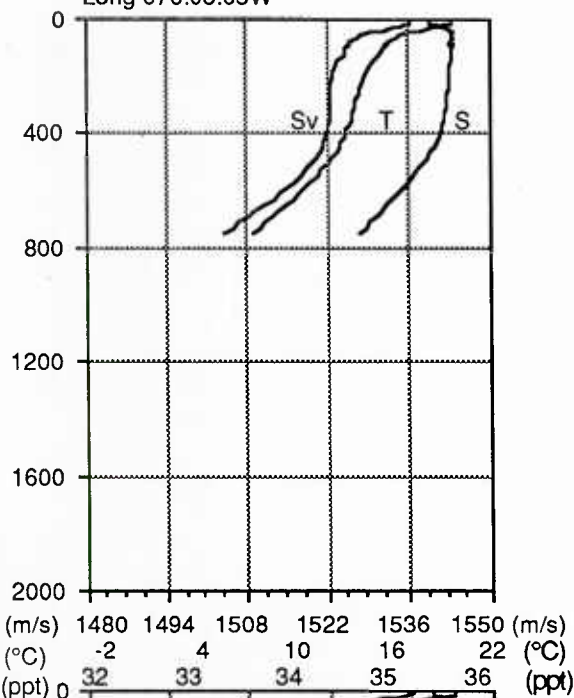
**LYNCH XBT #717**

June 7, 1987

Time: 0530Z

Lat 30:55:11N

Long 076:08:05W

**LYNCH XBT #718**

June 7, 1987

Time: 0600Z

Lat 30:54:35N

Long 076:08:41W

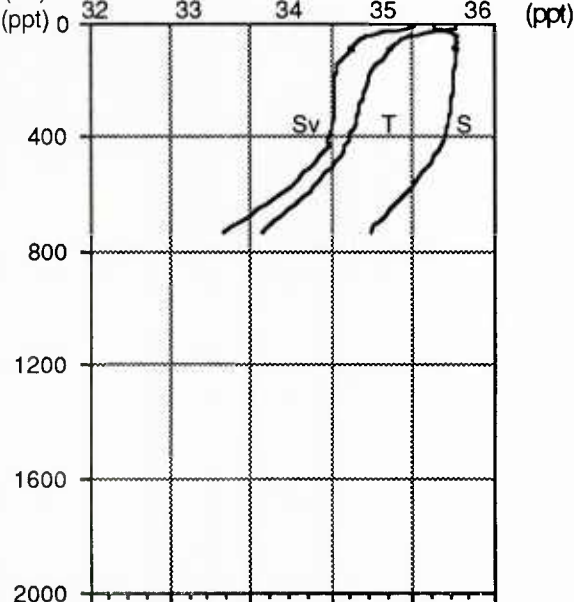
LYNCH XBT #719

June 7, 1987

Time: 0630Z

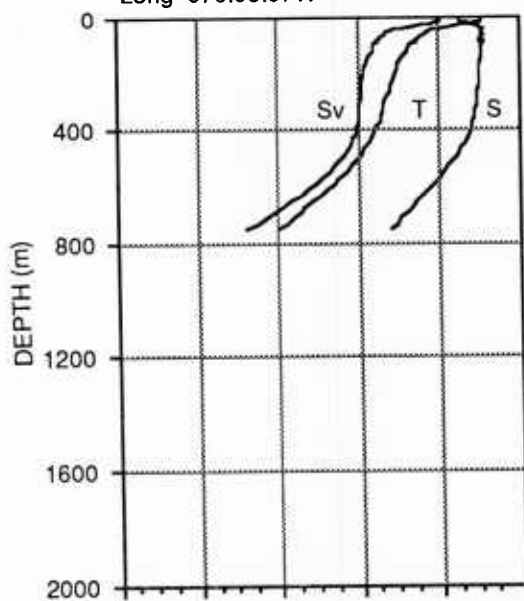
Lat 30:54:01N

Long 076:09:16W

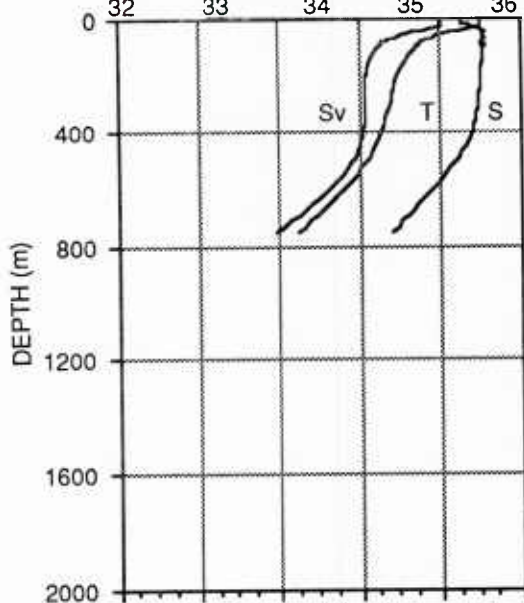
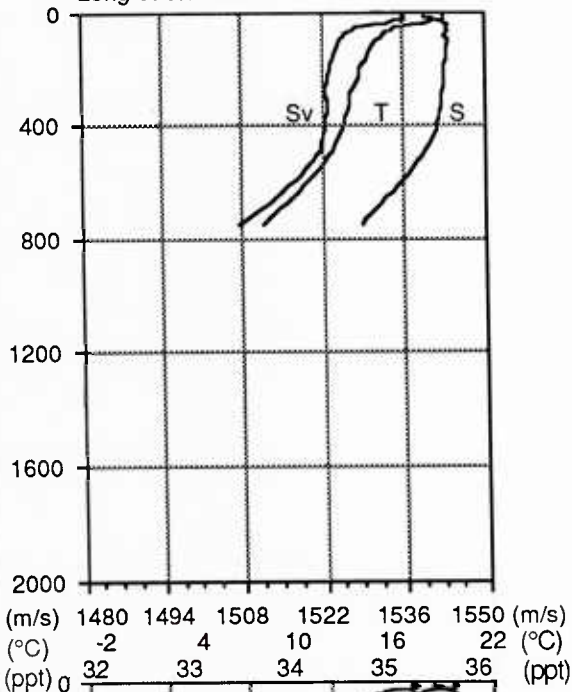


LYNCH XBT #720

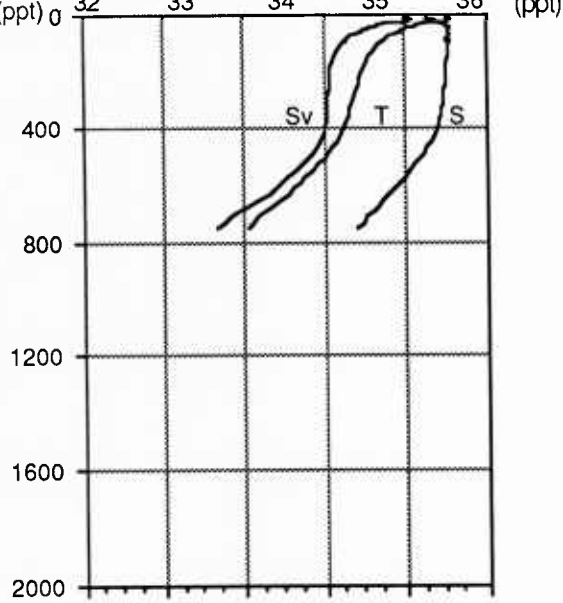
June 7, 1987
Time: 0700Z
Lat 30:55:06N
Long 076:08:07W

**LYNCH XBT #721**

June 7, 1987
Time: 0730Z
Lat 30:55:55N
Long 076:07:08W

**LYNCH XBT #722**

June 7, 1987
Time: 0800Z
Lat 30:54:45N
Long 076:06:34W

**LYNCH XBT #723**

June 7, 1987
Time: 0830Z
Lat 30:52:44N
Long 076:06:26W

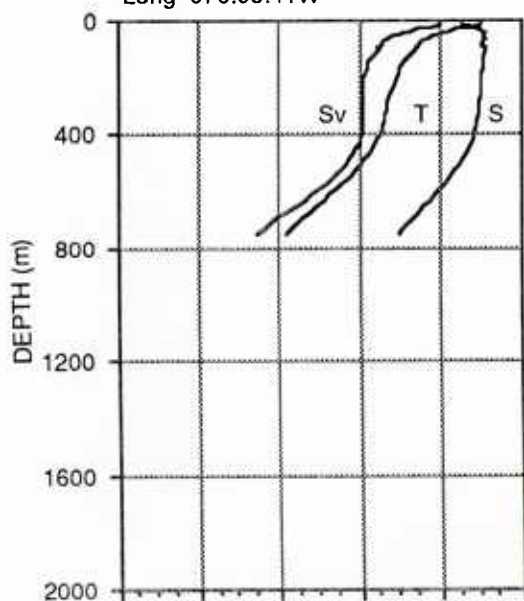
LYNCH XBT #724

June 7, 1987

Time: 0900Z

Lat 30:50:40N

Long 076:08:41W



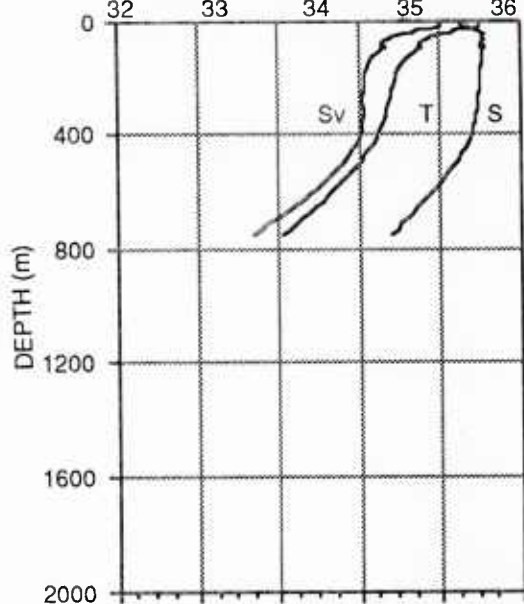
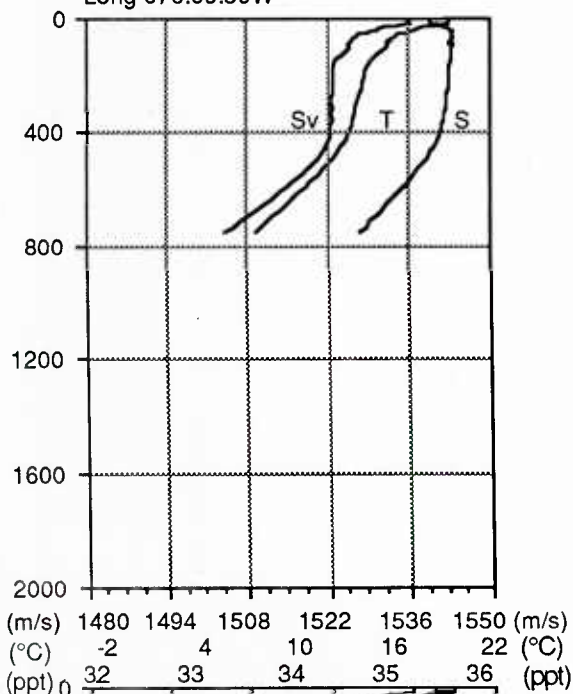
LYNCH XBT #725

June 7, 1987

Time: 0930Z

Lat 30:49:38N

Long 076:09:59W



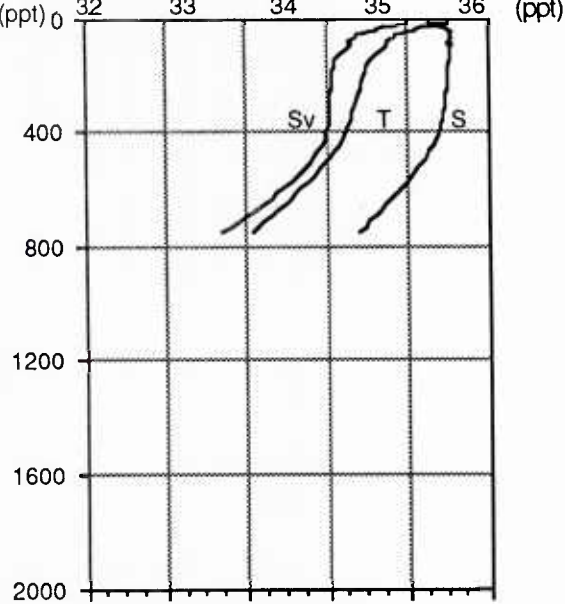
LYNCH XBT #726

June 7, 1987

Time: 1000Z

Lat 30:49:12N

Long 076:10:54W



LYNCH XBT #727

June 7, 1987

Time: 1030Z

Lat 30:48:10N

Long 076:10:54W

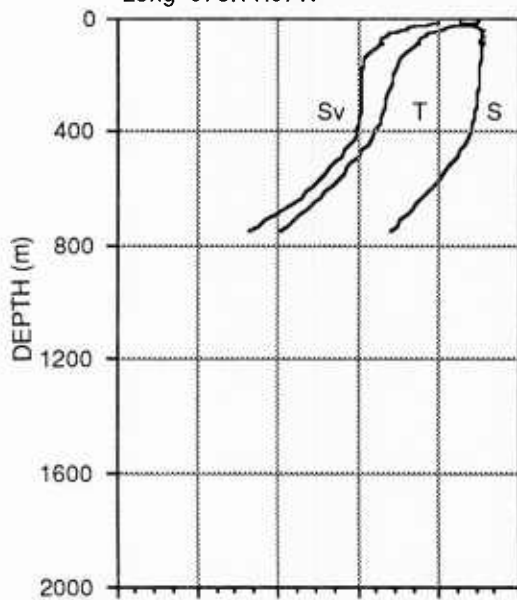
LYNCH XBT #728

June 7, 1987

Time: 1100Z

Lat 30:48:05N

Long 076:11:07W

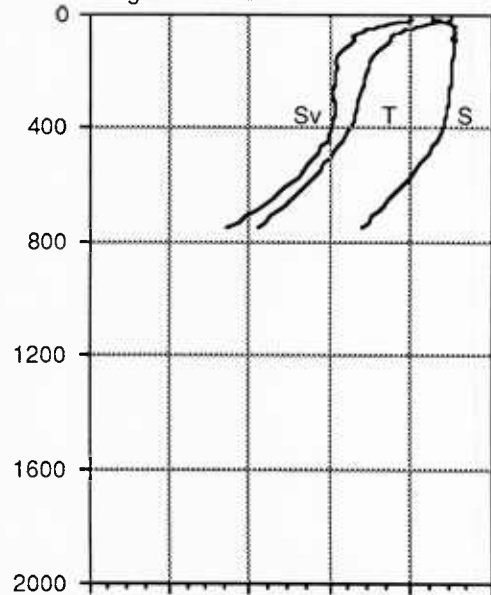
**LYNCH XBT #729**

June 7, 1987

Time: 1130Z

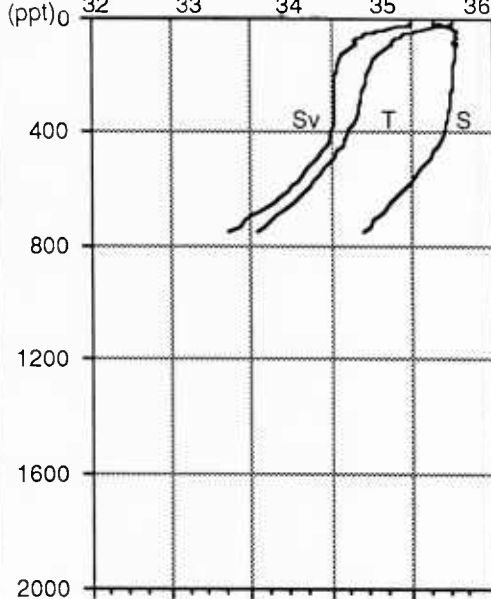
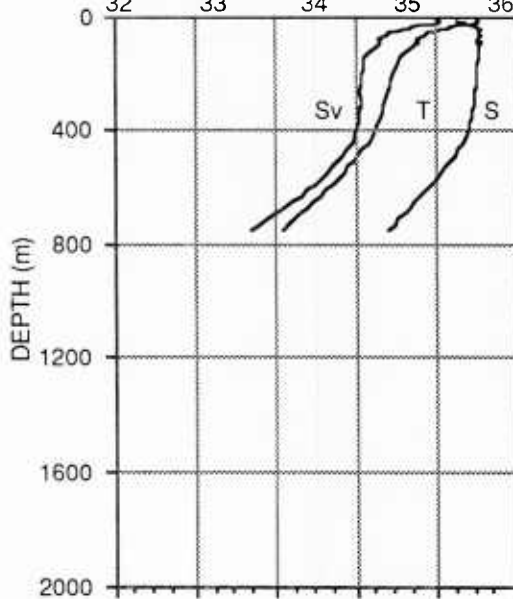
Lat 30:48:00N

Long 076:11:22W



1480 1494 1508 1522 1536 1550 (m/s)
-2 4 10 16 22 (°C)
32 33 34 35 36 (ppt)

1480 1494 1508 1522 1536 1550 (m/s)
-2 4 10 16 22 (°C)
32 33 34 35 36 (ppt)

**LYNCH XBT #730**

June 7, 1987

Time: 1200Z

Lat 30:48:03N

Long 076:11:29W

LYNCH XBT #731

June 7, 1987

Time: 1230Z

Lat 30:48:14N

Long 076:11:43W

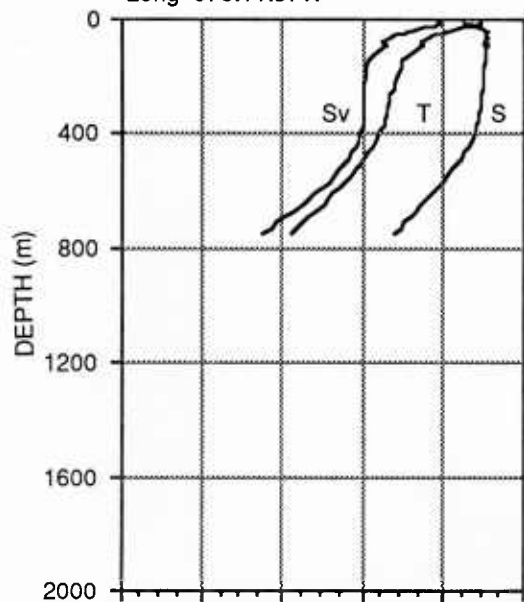
LYNCH XBT #732

June 7, 1987

Time: 1300Z

Lat 30:48:25N

Long 076:11:57W

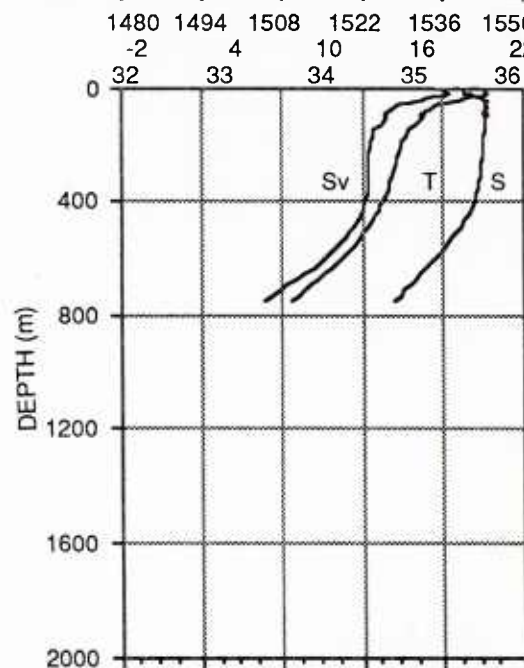
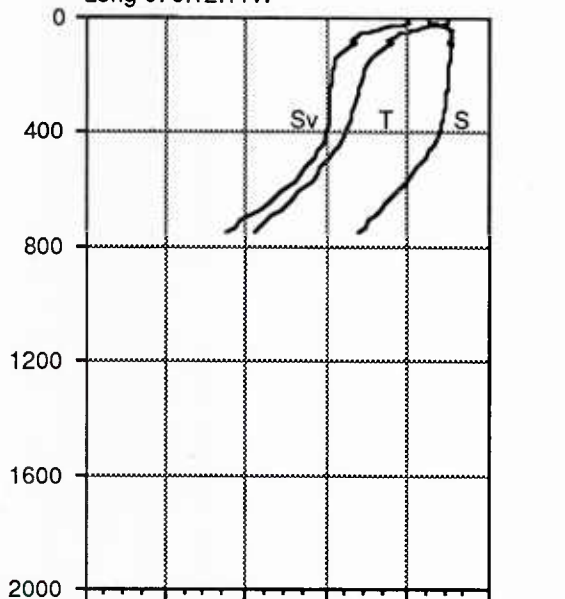
**LYNCH XBT #733**

June 7, 1987

Time: 1330Z

Lat 30:48:36N

Long 076:12:11W

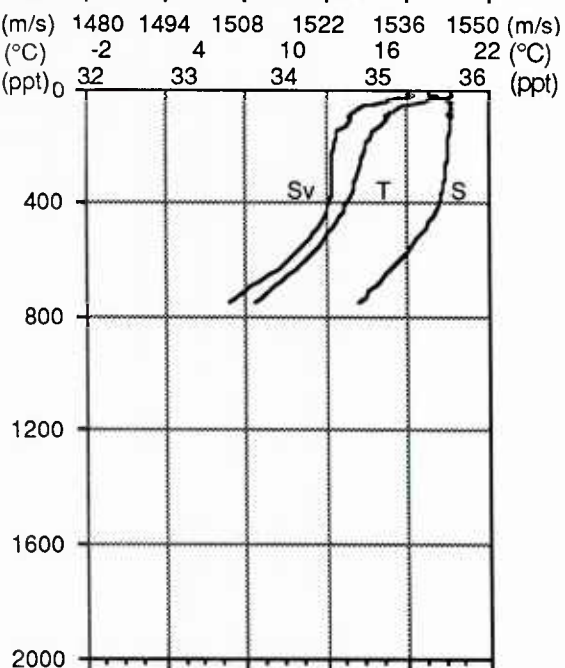
**LYNCH XBT #735**

June 7, 1987

Time: 1430Z

Lat 30:48:58N

Long 076:12:39W

**LYNCH XBT #736**

June 7, 1987

Time: 1459Z

Lat 30:50:59N

Long 076:11:52W

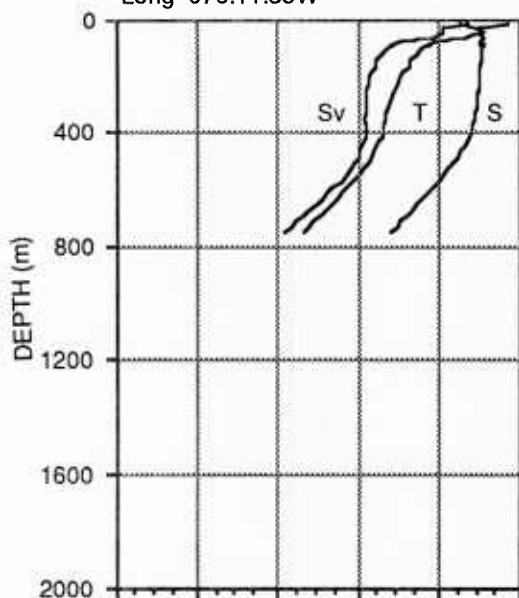
LYNCH XBT #737

June 7, 1987

Time: 1512Z

Lat 30:51:46N

Long 076:11:35W

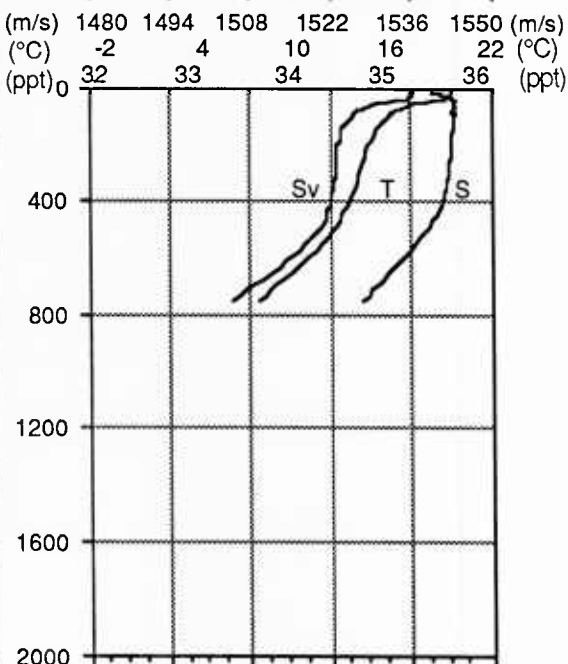
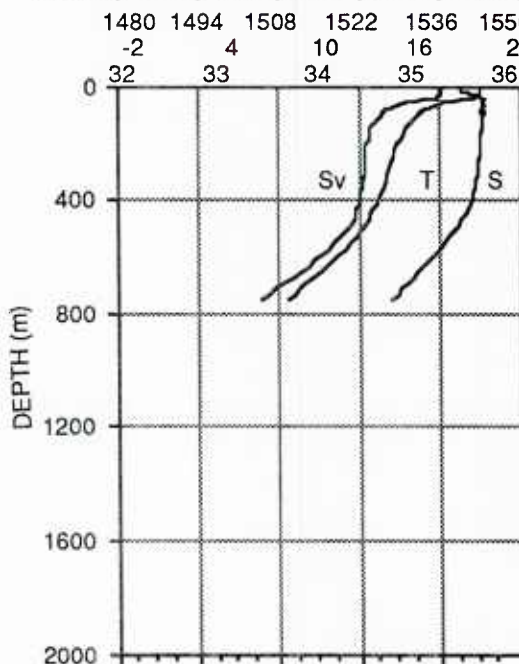
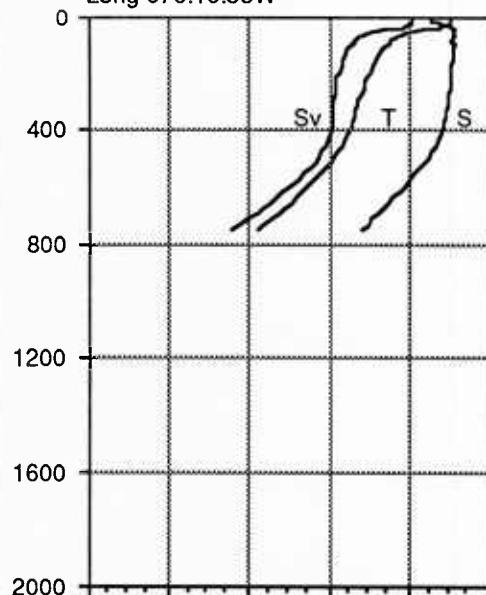
**LYNCH XBT #738**

June 7, 1987

Time: 1532Z

Lat 30:53:19N

Long 076:10:58W

**LYNCH XBT #739**

June 7, 1987

Time: 1600Z

Lat 30:55:28N

Long 076:10:01W

LYNCH XBT #740

June 7, 1987

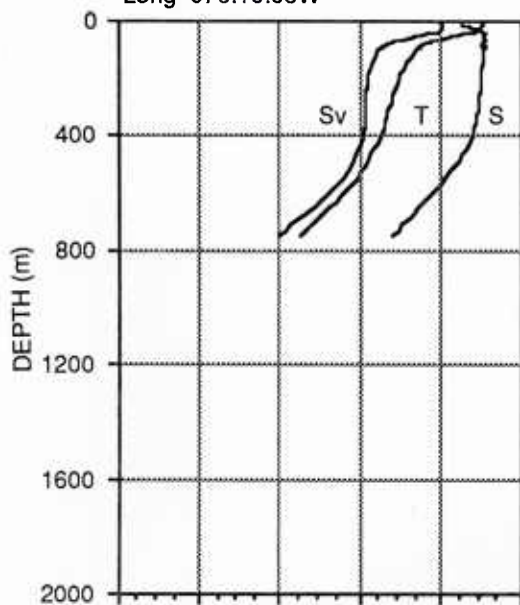
Time: 1700Z

Lat 30:58:10N

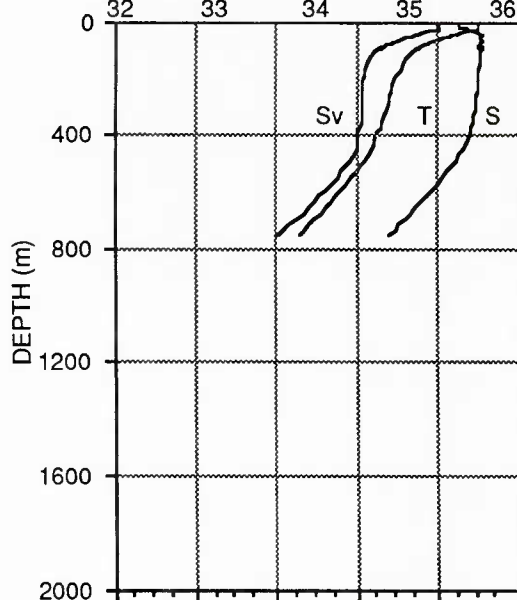
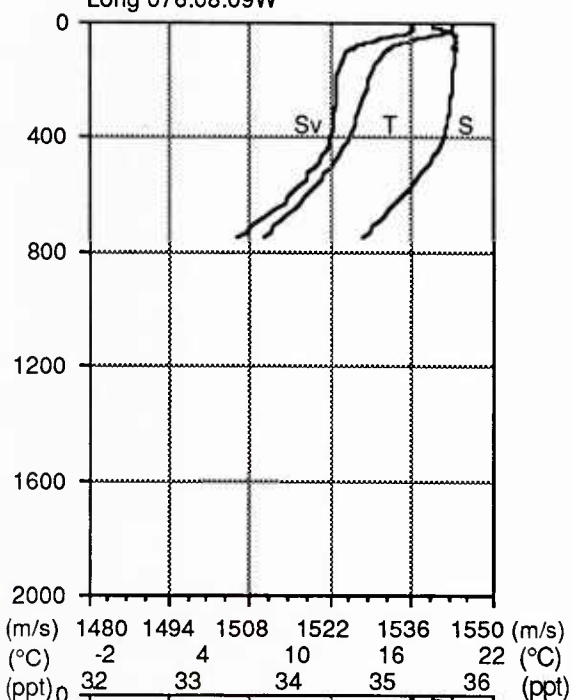
Long 076:08:14W

LYNCH XBT #742

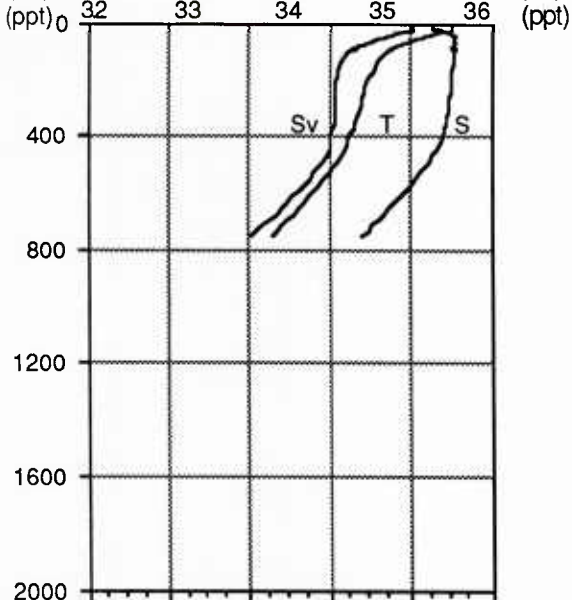
June 7, 1987
Time: 1810Z
Lat 30:56:31N
Long 076:10:08W

**LYNCH XBT #743**

June 7, 1987
Time: 1900Z
Lat 30:58:47N
Long 076:08:09W

**LYNCH XBT #744**

June 7, 1987
Time: 2025Z
Lat 31:01:24N
Long 076:05:41W

**LYNCH XBT #745**

June 7, 1987
Time: 2100Z
Lat 31:00:29N
Long 076:06:22W

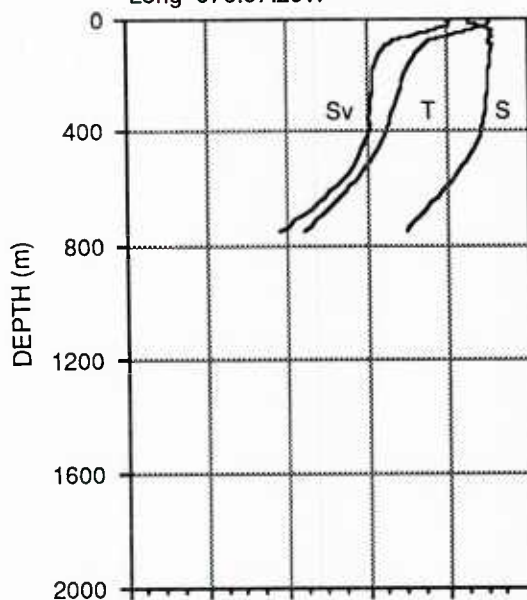
LYNCH XBT #746

June 7, 1987

Time: 2200Z

Lat 30:58:52N

Long 076:07:29W

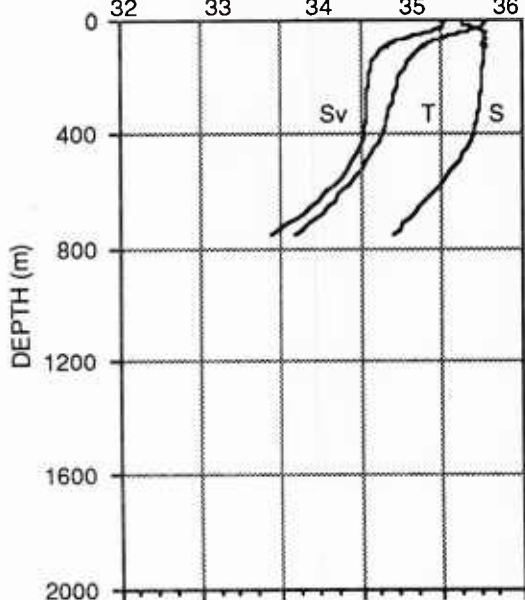
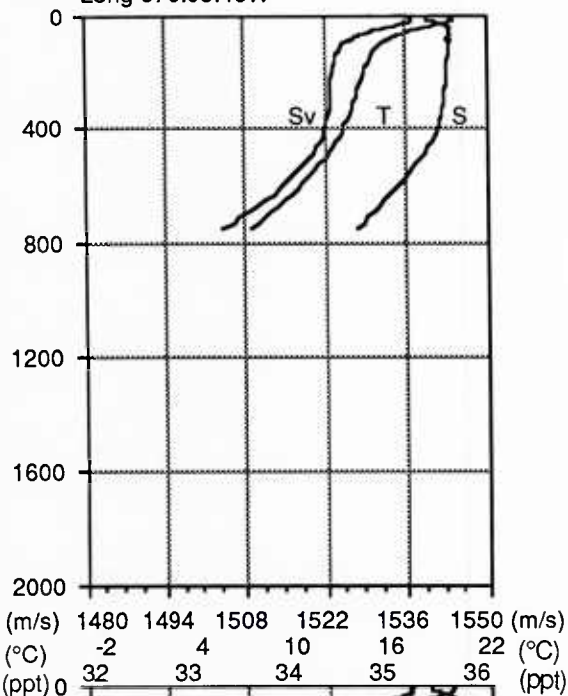
**LYNCH XBT #747**

June 7, 1987

Time: 2300Z

Lat 30:57:14N

Long 076:08:46W

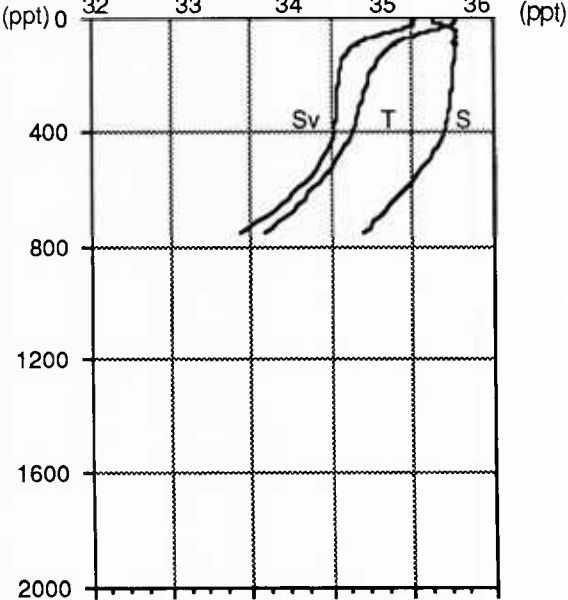
**LYNCH XBT #748**

June 8, 1987

Time: 0000Z

Lat 30:55:41N

Long 076:09:52W

**LYNCH XBT #750**

June 8, 1987

Time: 0100Z

Lat 30:56:05N

Long 076:09:40W

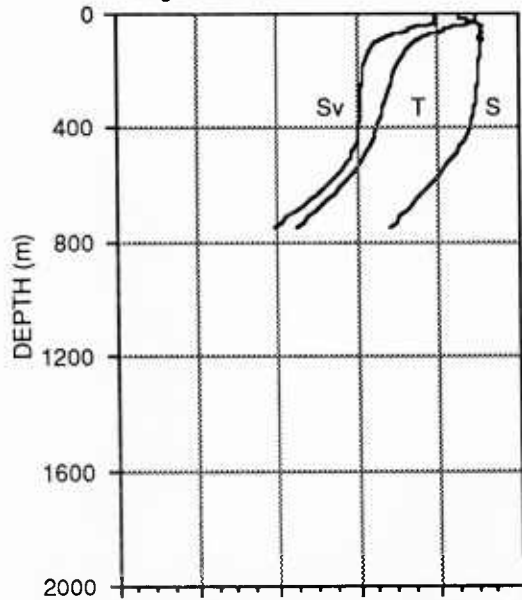
LYNCH XBT #751

June 8, 1987

Time: 0200Z

Lat 30:59:07N

Long 076:06:31W

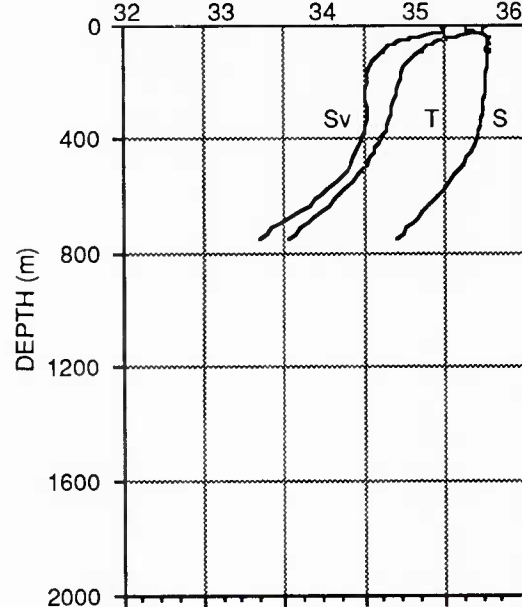
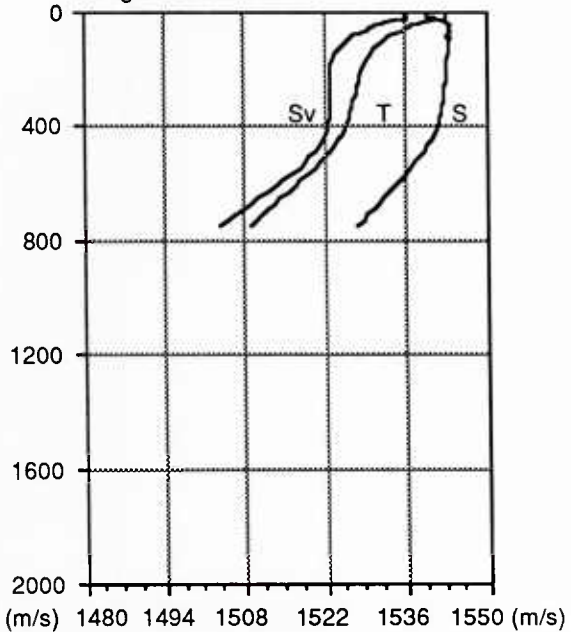
**LYNCH XBT #752**

June 8, 1987

Time: 0405Z

Lat 31:06:31N

Long 076:04:34W

**LYNCH XBT #754**

June 8, 1987

Time: 1603Z

Lat 30:59:12N

Long 076:04:18W

(m/s) 1480 1494 1508 1522 1536 1550 (m/s)
(°C) 2 4 10 16 22 (°C)
(ppt) 32 33 34 35 36 (ppt)

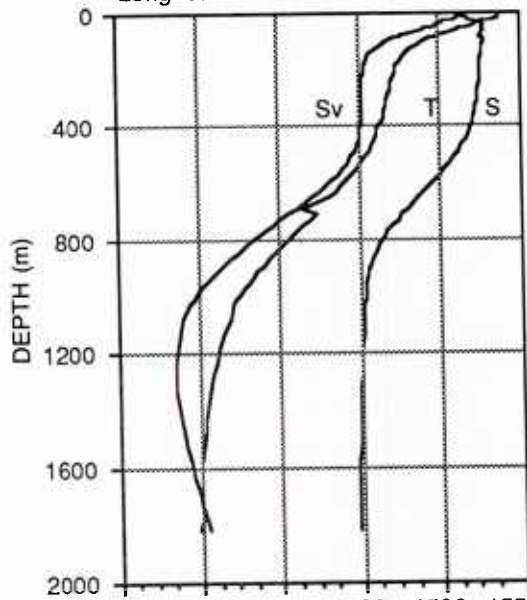
NADC-38 XBT #2

June 4, 1987

Time: 2130Z

Lat 31:02:45N

Long 075:56:37W

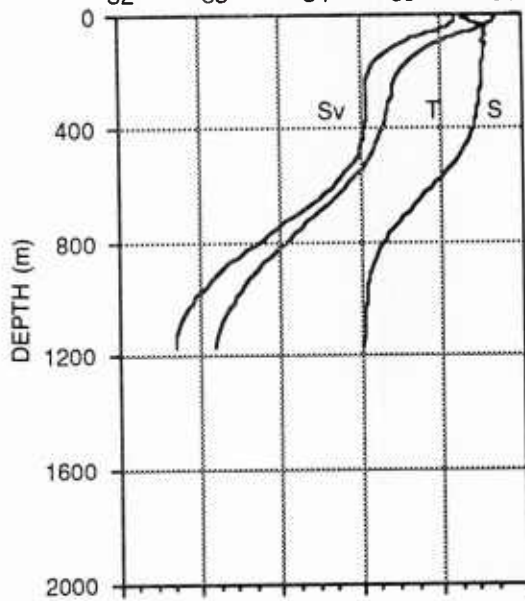
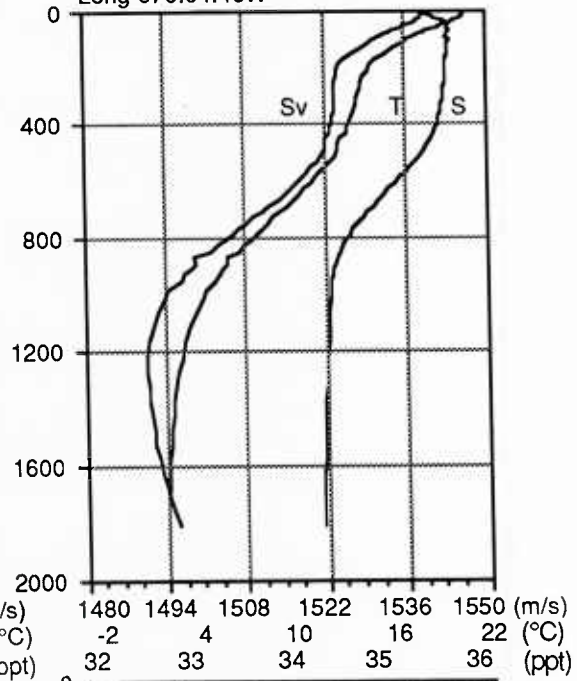
**NADC-38 XBT #3**

June 5, 1987

Time: 0100Z

Lat 31:02:14N

Long 076:04:46W

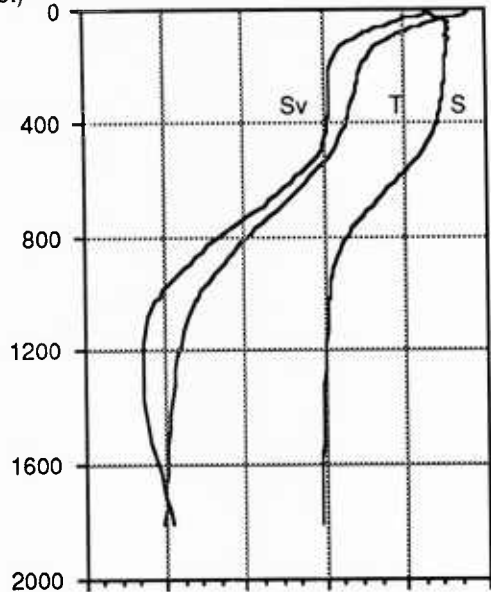
**NADC-38 XBT #4**

June 5, 1987

Time: 1008Z

Lat 31:00:06N

Long 076:00:01W

**NADC-38 XBT #5**

June 5, 1987

Time: 1008Z

Lat 31:00:06N

Long 076:00:01W

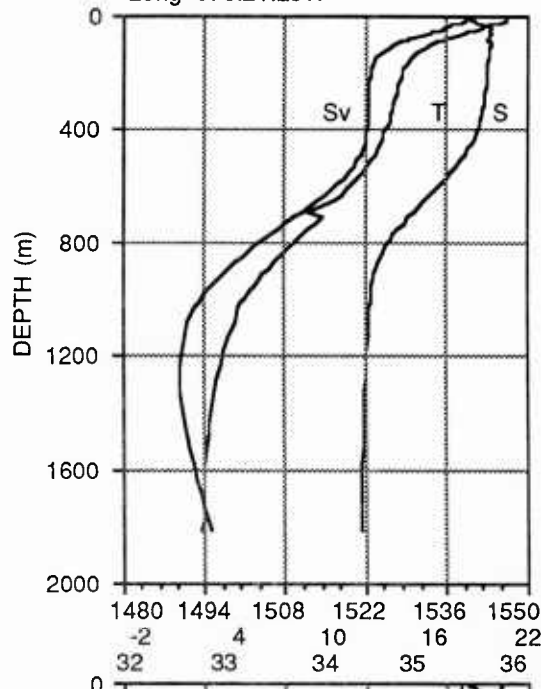
NADC-38 XBT #6

June 6, 1987

Time: 2310Z

Lat 30:55:04N

Long 076:21:23W

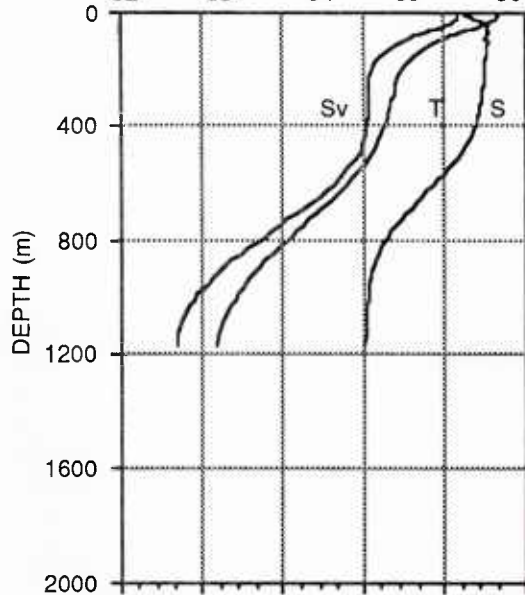
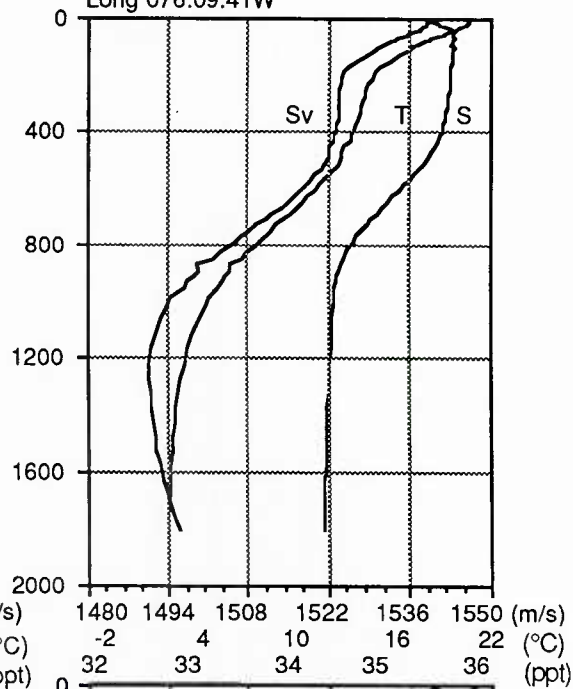
**NADC-38 XBT #7**

June 7, 1987

Time: 1740Z

Lat 31:01:53N

Long 076:09:41W

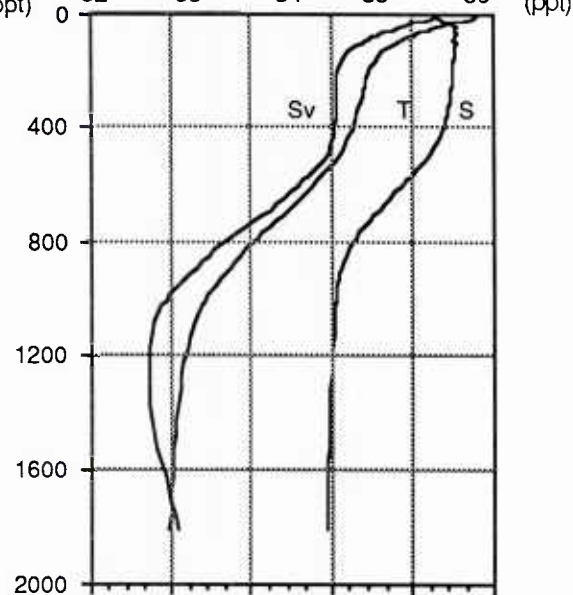
**NADC-38 XBT #8**

June 8, 1987

Time: 0600Z

Lat 31:02:27N

Long 076:01:52W

**NADC-38 XBT #9**

June 8, 1987

Time: 0812Z

Lat 30:53:32N

Long 076:02:09W

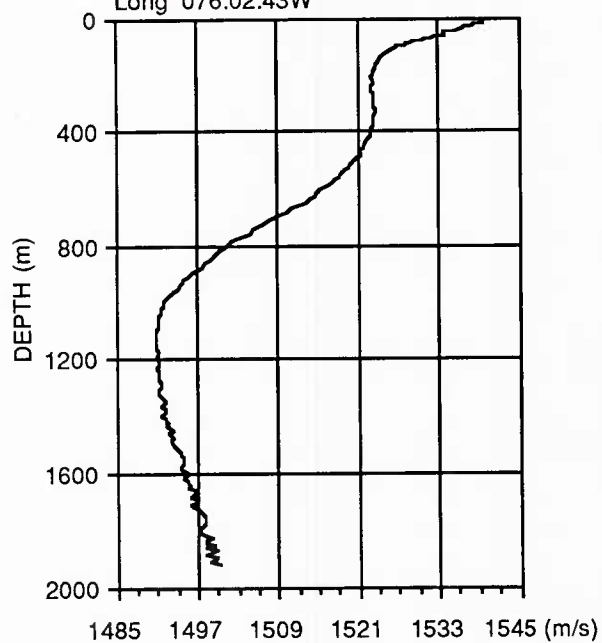
LYNCH XSV #4

June 3, 1987

Time: 2355Z

Lat 30:58:28N

Long 076:02:43W



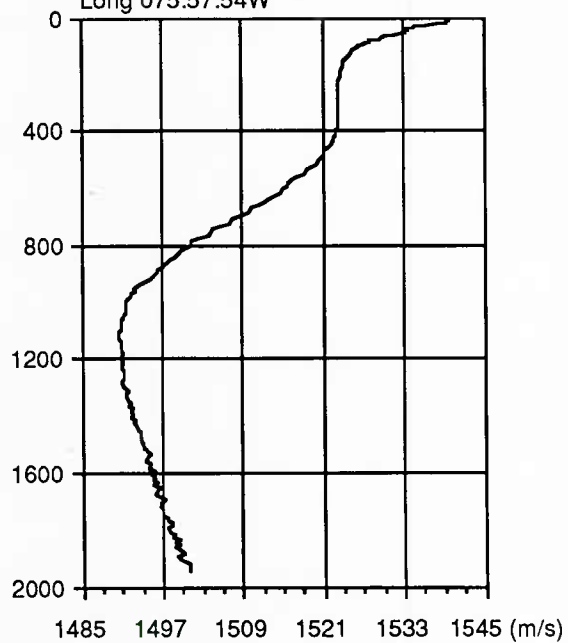
LYNCH XSV #8

June 5, 1987

Time: 0925Z

Lat 30:59:52N

Long 075:57:54W



Appendix B

Oceanographic Data Tabulations

LYNCH CTD 1

03/0115Z JUN 87

30° 57' 56" N

076° 01' 18" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
5.0	26.36	36.19	1538.89	220.0	18.73	36.52	1523.15
10.0	26.26	36.25	1538.80	225.0	18.70	36.52	1523.15
15.0	26.15	36.26	1538.64	230.0	18.67	36.52	1523.14
20.0	25.30	36.38	1536.87	235.0	18.63	36.52	1523.11
25.0	24.83	36.42	1535.87	240.0	18.62	36.53	1523.17
30.0	24.51	36.43	1535.19	245.0	18.58	36.52	1523.12
35.0	24.14	36.53	1534.48	250.0	18.55	36.52	1523.12
40.0	23.93	36.62	1534.14	255.0	18.52	36.52	1523.11
45.0	23.85	36.65	1534.06	260.0	18.50	36.52	1523.14
50.0	23.68	36.64	1533.71	265.0	18.45	36.51	1523.06
55.0	23.49	36.63	1533.31	270.0	18.41	36.50	1523.02
60.0	23.27	36.61	1532.82	275.0	18.39	36.50	1523.04
65.0	23.02	36.60	1532.26	280.0	18.33	36.50	1522.95
70.0	22.72	36.58	1531.55	285.0	18.30	36.49	1522.93
75.0	22.39	36.56	1530.77	290.0	18.27	36.49	1522.92
80.0	21.96	36.54	1529.72	295.0	18.27	36.50	1523.02
85.0	21.19	36.51	1527.74	300.0	18.26	36.51	1523.08
90.0	21.16	36.57	1527.81	315.0	18.19	36.50	1523.11
95.0	20.96	36.59	1527.38	330.0	18.10	36.49	1523.07
100.0	20.88	36.60	1527.25	345.0	18.00	36.48	1523.01
105.0	20.70	36.56	1526.80	360.0	17.91	36.46	1522.97
110.0	20.58	36.56	1526.56	375.0	17.86	36.46	1523.07
115.0	20.44	36.55	1526.25	390.0	17.72	36.44	1522.88
120.0	20.26	36.55	1525.84	405.0	17.62	36.43	1522.81
125.0	20.02	36.55	1525.27	420.0	17.49	36.41	1522.65
130.0	19.72	36.55	1524.52	435.0	17.34	36.38	1522.41
135.0	19.63	36.56	1524.36	450.0	17.24	36.37	1522.35
140.0	19.40	36.54	1523.78	465.0	17.01	36.33	1521.86
145.0	19.36	36.54	1523.75	480.0	16.86	36.31	1521.63
150.0	19.33	36.54	1523.74	495.0	16.69	36.28	1521.32
155.0	19.29	36.55	1523.72	510.0	16.39	36.23	1520.60
160.0	19.24	36.55	1523.66	525.0	16.10	36.17	1519.88
165.0	19.21	36.54	1523.65	540.0	15.94	36.15	1519.61
170.0	19.16	36.54	1523.59	555.0	15.61	36.10	1518.77
175.0	19.07	36.54	1523.41	570.0	15.25	36.03	1517.81
180.0	19.01	36.53	1523.31	585.0	15.01	35.99	1517.25
185.0	18.95	36.53	1523.22	600.0	14.65	35.93	1516.28
190.0	18.90	36.53	1523.16	615.0	14.41	35.90	1515.72
195.0	18.87	36.53	1523.16	630.0	14.14	35.85	1515.03
200.0	18.81	36.53	1523.07	645.0	13.89	35.81	1514.42
205.0	18.77	36.53	1523.03	660.0	13.61	35.77	1513.69
210.0	18.76	36.53	1523.09	675.0	13.34	35.73	1513.00
215.0	18.75	36.53	1523.14	690.0	13.03	35.68	1512.15

LYNCH CTD 1 (CONT'D) 03/0115Z JUN 87

30° 57' 56" N
076° 01' 18" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
705.0	12.70	35.63	1511.23	1335.0	4.57	35.00	1490.21
720.0	12.22	35.56	1509.77	1350.0	4.51	35.00	1490.21
735.0	11.95	35.53	1509.05	1365.0	4.47	34.99	1490.27
750.0	11.58	35.48	1507.96	1380.0	4.42	34.99	1490.31
765.0	11.07	35.42	1506.35	1400.0	4.39	34.98	1490.49
780.0	10.80	35.39	1505.60	1425.0	4.34	34.98	1490.69
795.0	10.50	35.35	1504.73	1450.0	4.31	34.98	1490.97
810.0	10.12	35.31	1503.56	1475.0	4.27	34.98	1491.21
825.0	9.74	35.27	1502.38	1500.0	4.23	34.98	1491.45
840.0	9.46	35.24	1501.57	1550.0	4.16	34.98	1491.96
855.0	9.16	35.22	1500.68	2000.0	3.75	34.98	1497.57
870.0	8.85	35.19	1499.74	2050.0	3.70	34.97	1498.17
885.0	8.61	35.17	1499.06	2100.0	3.67	34.98	1498.87
900.0	8.28	35.15	1498.04	2150.0	3.65	34.98	1499.61
915.0	7.94	35.13	1496.97	2200.0	3.56	34.97	1500.03
930.0	7.78	35.13	1496.60	2250.0	3.50	34.97	1500.60
945.0	7.52	35.11	1495.82	2300.0	3.45	34.96	1501.20
960.0	7.28	35.11	1495.14	2350.0	3.40	34.96	1501.81
975.0	7.13	35.10	1494.78	2400.0	3.35	34.96	1502.42
990.0	6.96	35.09	1494.35	2450.0	3.30	34.96	1503.03
1005.0	6.87	35.08	1494.23	2500.0	3.23	34.95	1503.54
1020.0	6.49	35.08	1492.98	2550.0	3.16	34.95	1504.07
1035.0	6.26	35.07	1492.30	2600.0	3.12	34.95	1504.72
1050.0	6.13	35.07	1492.03	2650.0	3.06	34.95	1505.29
1065.0	5.97	35.07	1491.63	2700.0	2.99	34.94	1505.81
1080.0	5.87	35.06	1491.46	2750.0	2.95	34.94	1506.46
1095.0	5.78	35.06	1491.34	2800.0	2.90	34.94	1507.08
1110.0	5.64	35.05	1491.01	2850.0	2.84	34.93	1507.63
1125.0	5.53	35.06	1490.82	2900.0	2.79	34.93	1508.25
1140.0	5.39	35.05	1490.48	2950.0	2.74	34.93	1508.87
1155.0	5.34	35.05	1490.52	3000.0	2.69	34.92	1509.47
1170.0	5.29	35.05	1490.56	3050.0	2.64	34.92	1510.08
1185.0	5.25	35.06	1490.65	3100.0	2.57	34.92	1510.62
1200.0	5.18	35.05	1490.60	3150.0	2.51	34.92	1511.19
1215.0	5.03	35.04	1490.21	3200.0	2.46	34.92	1511.81
1230.0	4.93	35.03	1490.03	3250.0	2.38	34.92	1512.30
1245.0	4.91	35.04	1490.21	3300.0	2.34	34.91	1512.95
1260.0	4.83	35.03	1490.11	3350.0	2.31	34.90	1513.64
1275.0	4.79	35.02	1490.17	3400.0	2.25	34.90	1514.22
1290.0	4.73	35.01	1490.16	3450.0	2.25	34.90	1515.05
1305.0	4.66	35.01	1490.11	3475.0	2.25	34.90	1515.47
1320.0	4.58	35.00	1490.01				

LYNCH CTD 4

04/1547Z JUN 87

30° 57' 58" N

076° 03' 47" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
5.0	26.57	36.29	1539.48	220.0	18.69	36.50	1523.01
10.0	26.57	36.29	1539.55	225.0	18.66	36.50	1523.01
15.0	26.54	36.29	1539.57	230.0	18.59	36.49	1522.88
20.0	26.41	36.28	1539.34	235.0	18.57	36.49	1522.90
25.0	26.10	36.27	1538.69	240.0	18.53	36.49	1522.87
30.0	25.71	36.29	1537.89	245.0	18.50	36.49	1522.86
35.0	25.31	36.33	1537.07	250.0	18.48	36.49	1522.88
40.0	25.05	36.36	1536.57	255.0	18.44	36.49	1522.85
45.0	24.48	36.40	1535.32	260.0	18.41	36.48	1522.83
50.0	24.07	36.39	1534.40	265.0	18.38	36.48	1522.83
55.0	23.70	36.46	1533.64	270.0	18.37	36.48	1522.88
60.0	23.45	36.46	1533.10	275.0	18.34	36.48	1522.87
65.0	23.33	36.54	1532.97	280.0	18.31	36.47	1522.86
70.0	22.72	36.51	1531.48	285.0	18.27	36.46	1522.81
75.0	22.29	36.51	1530.46	290.0	18.25	36.46	1522.83
80.0	22.16	36.56	1530.26	295.0	18.24	36.46	1522.88
85.0	21.95	36.56	1529.79	300.0	18.22	36.46	1522.91
90.0	21.70	36.54	1529.20	315.0	18.13	36.46	1522.89
95.0	21.42	36.57	1528.58	345.0	17.97	36.44	1522.88
100.0	21.15	36.58	1527.95	360.0	17.91	36.43	1522.94
105.0	20.77	36.54	1526.97	375.0	17.82	36.42	1522.90
110.0	20.67	36.56	1526.80	390.0	17.69	36.41	1522.75
115.0	20.57	36.56	1526.61	405.0	17.57	36.39	1522.62
120.0	20.21	36.51	1525.66	420.0	17.42	36.37	1522.40
125.0	20.05	36.53	1525.33	435.0	17.34	36.35	1522.38
130.0	20.00	36.54	1525.28	450.0	17.18	36.33	1522.12
135.0	19.80	36.51	1524.77	465.0	17.04	36.31	1521.92
140.0	19.68	36.52	1524.53	480.0	16.90	36.28	1521.00
145.0	19.61	36.53	1524.43	495.0	16.68	36.24	1521.24
150.0	19.53	36.52	1524.28	510.0	16.48	36.20	1520.84
155.0	19.45	36.52	1524.14	525.0	16.15	36.15	1520.01
160.0	19.43	36.52	1524.16	540.0	15.97	36.12	1519.67
165.0	19.39	36.52	1524.13	555.0	15.74	36.08	1519.15
170.0	19.32	36.52	1524.01	570.0	15.44	36.03	1518.41
175.0	19.27	36.52	1523.95	585.0	15.18	35.99	1517.79
180.0	19.19	36.51	1523.80	600.0	14.89	35.94	1517.05
185.0	19.11	36.51	1523.65	615.0	14.60	35.90	1516.33
190.0	19.03	36.51	1523.51	630.0	14.19	35.83	1515.17
195.0	18.89	36.50	1523.18	645.0	13.92	35.79	1514.49
200.0	18.82	36.50	1523.06	660.0	13.54	35.73	1513.42
205.0	18.79	36.50	1523.06	675.0	13.17	35.67	1512.37
210.0	18.78	36.50	1523.04	690.0	12.89	35.63	1511.63
215.0	18.72	36.50	1523.02	705.0	12.55	35.59	1510.68

LYNCH CTD 4 (CONT'D) 04/1547Z JUN 87

30° 57' 58" N

076° 03' 47" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
720.0	12.21	35.53	1509.70	1380.0	4.51	34.98	1490.67
735.0	12.02	35.51	1509.26	1400.0	4.48	34.97	1490.85
750.0	11.59	35.45	1507.95	1450.0	4.32	34.96	1490.98
765.0	11.08	35.38	1506.33	1500.0	4.25	34.95	1491.49
780.0	10.85	35.35	1505.73	1550.0	4.30	34.97	1492.54
790.0	10.38	35.31	1504.17	1600.0	4.15	34.95	1492.70
810.0	10.13	35.27	1503.55	1650.0	4.11	34.95	1493.34
820.0	9.77	35.23	1502.36	1700.0	4.08	34.96	1494.04
835.0	9.51	35.21	1501.63	1750.0	4.01	34.95	1494.55
855.0	9.14	35.18	1500.56	1800.0	4.04	34.96	1495.50
870.0	8.87	35.16	1499.78	1850.0	3.94	34.96	1495.90
885.0	8.55	35.12	1498.77	1900.0	3.88	34.95	1496.45
900.0	8.26	35.11	1497.91	1950.0	3.82	34.95	1497.01
915.0	7.96	35.10	1497.01	2000.0	3.76	34.95	1497.58
930.0	7.79	35.09	1496.59	2050.0	3.74	34.95	1498.31
945.0	7.53	35.08	1495.82	2100.0	3.70	34.94	1498.95
960.0	7.30	35.07	1495.16	2150.0	3.64	34.94	1499.51
975.0	7.05	35.06	1494.42	2200.0	3.59	34.94	1500.12
990.0	6.88	35.06	1494.00	2250.0	3.51	34.94	1500.60
1005.0	6.62	35.05	1493.21	2300.0	3.45	34.94	1501.17
1020.0	6.37	35.04	1492.46	2350.0	3.39	34.93	1501.72
1035.0	6.23	35.04	1492.14	2400.0	3.33	34.93	1502.29
1050.0	6.07	35.03	1491.74	2450.0	3.29	34.93	1502.95
1065.0	5.95	35.04	1491.51	2500.0	3.21	34.92	1503.42
1080.0	5.83	35.04	1491.27	2550.0	3.17	34.92	1504.07
1095.0	5.68	35.03	1490.90	2600.0	3.12	34.92	1504.68
1110.0	5.57	35.03	1490.70	2650.0	3.07	34.92	1505.29
1125.0	5.49	35.03	1490.62	2700.0	3.01	34.91	1505.85
1140.0	5.37	35.02	1490.36	2750.0	2.95	34.91	1506.42
1155.0	5.30	35.01	1490.31	2800.0	2.90	34.91	1507.04
1170.0	5.22	35.01	1490.22	2850.0	2.85	34.90	1507.64
1185.0	5.14	35.01	1490.14	2900.0	2.79	34.90	1508.21
1200.0	5.08	35.01	1490.14	2950.0	2.74	34.90	1508.83
1215.0	5.02	35.00	1490.12	3000.0	2.70	34.89	1509.47
1230.0	4.93	35.00	1490.00	3050.0	2.62	34.89	1509.96
1245.0	4.95	35.01	1490.33	3100.0	2.56	34.89	1510.53
1260.0	4.92	35.00	1490.44	3150.0	2.50	34.88	1511.10
1275.0	4.89	35.00	1490.56	3200.0	2.43	34.88	1511.63
1290.0	4.82	35.00	1490.51	3250.0	2.38	34.88	1512.25
1305.0	4.73	34.99	1490.37	3300.0	2.34	34.88	1512.91
1320.0	4.65	34.98	1490.27	3350.0	2.31	34.87	1513.60
1335.0	4.62	34.98	1490.39	3400.0	2.26	34.87	1514.22
1350.0	4.56	34.98	1490.39	3450.0	2.26	34.87	1515.06
1365.0	4.56	34.98	1490.63	3470.0	2.26	34.87	1515.39

LYNCH CTD 7

05/1618Z JUN 87

30° 53' 58" N

075° 59' 17" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
5.0	26.51	36.29	1539.34	220.0	18.62	36.49	1522.80
10.0	26.37	36.28	1539.09	225.0	18.60	36.49	1522.83
15.0	25.94	36.27	1538.17	230.0	18.56	36.49	1522.79
20.0	25.61	36.40	1537.62	235.0	18.53	36.49	1522.79
25.0	25.28	36.44	1536.96	240.0	18.52	36.49	1522.84
30.0	24.08	36.58	1534.31	245.0	18.45	36.48	1522.71
35.0	23.72	36.63	1533.56	250.0	18.42	36.49	1522.71
40.0	23.51	36.67	1533.16	255.0	18.93	36.49	1524.25
45.0	23.42	36.67	1533.02	260.0	18.37	36.49	1522.73
50.0	22.99	36.57	1531.91	265.0	18.33	36.48	1522.68
55.0	22.33	36.52	1530.25	270.0	18.32	36.48	1522.73
60.0	22.17	36.56	1529.96	275.0	18.32	36.48	1522.81
65.0	21.90	36.53	1529.31	280.0	18.31	36.48	1522.87
70.0	21.58	36.54	1528.56	285.0	18.30	36.48	1522.92
75.0	21.15	36.51	1527.47	290.0	18.29	36.49	1522.98
80.0	20.83	36.49	1526.68	295.0	18.28	36.49	1523.03
85.0	20.60	36.50	1526.15	300.0	18.25	36.49	1523.03
90.0	20.41	36.53	1525.75	315.0	18.19	36.48	1523.08
95.0	20.30	36.53	1525.53	330.0	18.09	36.47	1523.02
100.0	20.15	36.52	1525.19	345.0	17.96	36.44	1522.85
105.0	20.02	36.53	1524.92	360.0	17.86	36.43	1522.79
110.0	19.89	36.52	1524.63	375.0	17.72	36.41	1522.60
115.0	19.77	36.53	1524.39	390.0	17.60	36.40	1522.48
120.0	19.66	36.52	1524.16	405.0	17.50	36.38	1522.40
125.0	19.48	36.53	1523.75	420.0	17.43	36.37	1522.43
130.0	19.43	36.54	1523.70	435.0	17.28	36.35	1522.20
135.0	19.36	36.54	1523.59	450.0	17.15	36.33	1522.03
140.0	19.19	36.51	1523.16	465.0	16.99	36.30	1521.76
145.0	19.14	36.52	1523.11	480.0	16.76	36.26	1521.27
150.0	19.08	36.52	1523.02	495.0	16.55	36.22	1520.83
155.0	19.03	36.51	1522.95	510.0	16.38	36.19	1520.52
160.0	18.98	36.51	1522.88	525.0	16.12	36.15	1519.92
165.0	18.95	36.50	1522.87	540.0	15.72	36.08	1518.85
170.0	18.90	36.50	1522.81	555.0	15.46	36.04	1518.24
175.0	18.86	36.50	1522.77	570.0	15.12	35.99	1517.36
180.0	18.85	36.50	1522.83	585.0	14.85	35.94	1516.69
185.0	18.83	36.50	1522.85	600.0	14.65	35.91	1516.26
190.0	18.81	36.50	1522.87	615.0	14.21	35.83	1514.99
195.0	18.79	36.50	1522.90	630.0	13.84	35.78	1513.98
200.0	18.76	36.50	1522.89	645.0	13.57	35.73	1513.27
205.0	18.74	36.50	1522.92	660.0	13.29	35.69	1512.55
210.0	18.69	36.50	1522.85	675.0	12.95	35.64	1511.60
215.0	18.64	36.49	1522.78	690.0	12.65	35.60	1510.79

LYNCH CTD 7 (CONT'D) 05/1618Z JUN 87

30° 53' 58" N

075° 59' 17" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
705.0	12.20	35.53	1509.42	1365.0	4.47	34.97	1490.24
720.0	11.85	35.49	1508.42	1380.0	4.45	34.97	1490.40
735.0	11.50	35.44	1507.39	1400.0	4.38	34.96	1490.42
750.0	11.18	35.40	1506.47	1450.0	4.31	34.96	1490.94
765.0	10.81	35.34	1505.34	1500.0	4.34	34.97	1491.89
780.0	10.43	35.31	1504.19	1550.0	4.31	34.97	1492.58
795.0	10.08	35.26	1503.12	1600.0	4.27	34.97	1493.22
810.0	9.73	35.22	1502.04	1650.0	4.18	34.97	1493.66
825.0	9.41	35.19	1501.08	1700.0	4.00	34.95	1494.00
840.0	9.25	35.18	1500.72	1750.0	3.98	34.95	1494.42
855.0	8.86	35.15	1499.48	1800.0	3.94	34.95	1495.07
870.0	8.53	35.13	1498.47	1850.0	3.88	34.95	1495.63
885.0	8.31	35.11	1497.86	1900.0	3.84	34.95	1496.28
900.0	8.08	35.10	1497.22	1950.0	3.80	34.95	1496.93
915.0	7.85	35.09	1496.58	2000.0	3.77	34.95	1497.62
930.0	7.61	35.08	1495.89	2050.0	3.71	34.95	1498.18
945.0	7.38	35.08	1495.24	2100.0	3.65	34.95	1498.75
960.0	7.21	35.07	1494.82	2150.0	3.60	34.94	1499.34
975.0	6.98	35.06	1494.15	2200.0	3.55	34.94	1499.95
990.0	6.75	35.06	1493.49	2250.0	3.48	34.94	1500.48
1005.0	6.53	35.05	1492.86	2300.0	3.42	34.93	1501.03
1020.0	6.36	35.05	1492.43	2350.0	3.36	34.93	1501.60
1035.0	6.17	35.04	1491.91	2400.0	3.31	34.93	1502.21
1050.0	6.01	35.03	1491.50	2450.0	3.27	34.93	1502.86
1065.0	5.89	35.03	1491.26	2500.0	3.21	34.92	1503.42
1080.0	5.81	35.03	1491.18	2550.0	3.15	34.92	1503.99
1095.0	5.72	35.03	1491.06	2600.0	3.12	34.92	1504.68
1110.0	5.62	35.03	1490.90	2650.0	3.06	34.92	1505.25
1125.0	5.54	35.03	1490.82	2700.0	2.99	34.91	1505.77
1140.0	5.42	35.02	1490.56	2750.0	2.94	34.91	1506.38
1155.0	5.32	35.02	1490.40	2800.0	2.88	34.90	1506.94
1170.0	5.21	35.01	1490.18	2850.0	2.82	34.90	1507.51
1185.0	5.15	35.01	1490.18	2900.0	2.77	34.90	1508.13
1200.0	5.07	35.01	1490.10	2950.0	2.71	34.89	1508.68
1215.0	5.01	35.00	1490.08	3000.0	2.65	34.89	1509.26
1230.0	4.94	35.00	1490.04	3050.0	2.58	34.89	1509.79
1245.0	4.89	35.00	1490.07	3100.0	2.53	34.89	1510.41
1260.0	4.80	34.99	1489.93	3150.0	2.48	34.88	1511.01
1275.0	4.81	35.00	1490.23	3200.0	2.42	34.88	1511.58
1290.0	4.75	34.99	1490.21	3250.0	2.39	34.88	1512.29
1305.0	4.73	34.99	1490.37	3300.0	2.34	34.87	1512.90
1320.0	4.67	34.99	1490.37	3350.0	2.30	34.87	1513.56
1335.0	4.59	34.98	1490.27	3400.0	2.25	34.87	1514.18
1350.0	4.54	34.97	1490.29	3500.0	2.18	34.86	1515.54

LYNCH XBT 502

02/2345Z JUN 87

30° 59' 19" N

075° 59' 39" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.1	26.6	36.19	1539.52	553.9	15.6	36.07	1518.54
8.2	26.5	36.26	1539.24	574.4	15.1	36.00	1517.40
12.3	26.2	36.27	1538.80	588.1	14.9	35.93	1516.88
18.5	26.1	36.27	1538.50	608.6	14.4	35.88	1515.62
24.6	25.0	36.35	1536.29	629.0	14.1	35.80	1514.83
28.6	24.7	36.38	1535.47	649.4	13.6	35.73	1513.51
32.7	24.5	36.43	1535.09	669.8	13.2	35.68	1512.46
36.8	24.2	36.50	1534.52	690.1	12.8	35.61	1511.14
43.0	23.9	36.55	1533.99	710.4	12.5	35.53	1510.39
49.1	23.7	36.57	1533.77	730.7	11.9	35.49	1508.73
53.1	23.5	36.53	1533.29	750.9	11.4	35.41	1507.37
57.2	23.3	36.54	1532.77	771.1	11.0	35.35	1505.96
63.4	22.8	36.54	1531.62	791.2	10.4	35.31	1504.26
69.5	22.3	36.56	1530.55	811.4	9.9	35.25	1502.79
73.5	22.0	36.54	1529.77	831.4	9.4	35.21	1501.28
77.6	22.0	36.53	1529.79	851.5	9.1	35.18	1500.23
81.7	21.3	36.53	1528.11	871.5	8.8	35.15	1499.34
87.8	21.1	36.52	1527.43	891.5	8.4	35.12	1498.15
89.8	21.0	36.55	1527.39	911.4	8.0	35.11	1497.18
114.2	20.0	36.54	1525.00	931.3	7.7	35.10	1496.25
128.4	19.7	36.53	1524.36	951.2	7.3	35.08	1495.12
149.7	19.4	36.53	1523.78	971.0	7.0	35.07	1494.20
170.9	19.1	36.52	1523.35	990.8	6.8	35.07	1493.63
192.1	18.9	36.51	1523.06	1010.6	6.5	35.06	1492.84
213.3	18.7	36.51	1522.88	1030.3	6.3	35.05	1492.24
234.4	18.6	36.50	1522.96	1076.1	5.8	35.04	1491.16
255.5	18.5	36.50	1522.89	1128.3	5.4	35.03	1490.41
269.5	18.4	36.48	1522.93	1180.3	5.1	35.02	1489.99
290.6	18.2	36.48	1522.81	1231.9	4.9	35.01	1489.79
311.6	18.1	36.48	1522.80	1283.3	4.7	35.00	1489.95
332.5	18.0	36.46	1522.75	1334.5	4.6	34.98	1490.15
353.5	17.9	36.44	1522.79	1379.0	4.4	34.98	1490.34
374.4	17.7	36.43	1522.69	1423.4	4.3	34.97	1490.48
395.2	17.6	36.41	1522.60	1473.9	4.2	34.97	1490.84
409.1	17.5	36.38	1522.53	1524.1	4.1	34.97	1491.27
429.9	17.3	36.36	1522.16	1574.0	4.1	34.96	1491.89
450.6	17.1	36.33	1522.01	1623.7	4.0	34.96	1492.58
471.3	16.9	36.28	1521.47	1679.3	4.0	34.96	1493.24
492.0	16.6	36.25	1520.84	1734.5	3.9	34.95	1493.95
512.7	16.2	36.18	1520.11	1783.4	3.9	34.96	1494.80
533.3	15.9	36.12	1519.28	1819.9	4.0	34.96	1495.48

LYNCH XBT 506

04/1600Z JUN 87

30° 57' 49" N

076° 03' 58" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.1	26.9	36.19	1540.19	553.9	15.9	36.07	1519.74
8.2	26.9	36.26	1540.26	574.4	15.6	36.00	1518.93
12.3	26.9	36.27	1540.21	588.1	15.3	35.93	1518.08
18.5	26.8	36.27	1540.12	608.6	14.9	35.88	1517.05
24.6	26.6	36.35	1539.81	629.0	14.5	35.80	1516.08
28.6	26.3	36.38	1539.42	649.4	14.0	35.73	1514.85
32.7	25.9	36.43	1538.62	669.8	13.7	35.68	1514.14
36.8	25.6	36.50	1538.03	690.1	13.2	35.61	1512.64
43.0	25.2	36.55	1537.14	710.4	12.8	35.53	1511.60
49.1	24.6	36.57	1535.96	730.7	12.4	35.49	1510.33
53.1	24.5	36.53	1535.57	750.9	11.9	35.41	1509.13
57.2	24.3	36.54	1535.21	771.1	11.4	35.35	1507.44
63.4	23.9	36.54	1534.30	791.2	10.8	35.31	1505.79
69.5	23.5	36.56	1533.41	811.4	10.4	35.25	1504.35
73.5	23.0	36.54	1532.30	831.4	9.9	35.21	1502.99
77.6	22.8	36.53	1531.80	851.5	9.5	35.18	1501.72
81.7	22.5	36.53	1531.02	871.5	9.1	35.15	1500.71
87.8	22.2	36.52	1530.44	891.5	8.7	35.12	1499.59
93.9	21.9	36.55	1529.84	911.4	8.4	35.11	1498.47
99.0	21.6	36.57	1529.21	931.3	8.0	35.10	1497.49
114.2	20.9	36.54	1527.47	951.2	7.7	35.08	1496.50
128.4	20.3	36.53	1526.15	971.0	7.4	35.07	1495.65
149.7	19.7	36.53	1524.83	990.8	7.1	35.07	1494.92
170.9	19.5	36.52	1524.41	1010.6	6.8	35.07	1494.13
192.1	19.2	36.51	1523.92	1030.3	6.5	35.05	1493.26
213.3	18.9	36.51	1523.48	1076.1	6.0	35.04	1491.87
234.4	18.7	36.50	1523.39	1128.3	5.6	35.03	1490.99
255.5	18.6	36.50	1523.32	1180.3	5.3	35.02	1490.54
269.5	18.5	36.48	1523.30	1231.9	5.0	35.01	1490.40
290.6	18.4	36.48	1523.30	1283.3	4.8	35.00	1490.51
311.6	18.3	36.48	1523.32	1334.5	4.6	34.98	1490.45
332.5	18.2	36.46	1523.34	1379.0	4.5	34.98	1490.64
353.5	18.1	36.44	1523.34	1423.4	4.4	34.97	1490.90
374.4	18.0	36.43	1523.34	1473.9	4.3	34.97	1491.31
395.2	17.9	36.41	1523.30	1524.1	4.3	34.97	1492.12
409.1	17.8	36.38	1523.23	1574.0	4.2	34.96	1492.40
429.9	17.6	36.36	1523.03	1623.7	4.1	34.96	1492.92
450.6	17.4	36.33	1522.81	1679.3	4.1	34.96	1493.87
471.3	17.2	36.28	1522.50	1734.5	4.1	34.95	1494.55
492.0	17.0	36.25	1522.07	1783.4	4.1	34.96	1495.33
512.7	16.6	36.18	1521.22	1819.9	4.0	34.96	1495.67
533	16.2	36.12	1520.35				

LYNCH XBT 510

06/0000Z JUN 87

30° 55' 14" N

075° 59' 56" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.1	26.1	36.19	1538.22	553.9	15.7	36.12	1519.09
8.2	26.0	36.26	1538.09	574.4	15.4	36.07	1518.34
12.3	25.9	36.27	1538.10	588.1	15.2	36.00	1517.78
18.5	25.1	36.27	1536.16	608.6	14.7	35.93	1516.68
24.6	24.5	36.35	1535.00	629.0	14.3	35.88	1515.63
28.6	24.3	36.38	1534.53	649.4	13.9	35.80	1514.37
32.7	24.1	36.43	1534.14	669.8	13.5	35.73	1513.31
36.8	23.8	36.50	1533.54	690.1	12.9	35.68	1511.72
43.0	23.4	36.55	1532.91	710.4	12.4	35.61	1510.25
49.1	22.9	36.57	1531.72	730.7	11.9	35.53	1508.77
53.1	22.6	36.53	1530.98	750.9	11.5	35.49	1507.67
57.2	22.5	36.54	1530.69	771.1	11.0	35.41	1506.12
63.4	22.1	36.54	1529.74	791.2	10.5	35.35	1504.70
69.5	21.8	36.56	1529.10	811.4	10.0	35.31	1503.26
73.5	21.6	36.54	1528.57	831.4	9.6	35.25	1501.91
77.6	21.4	36.53	1528.25	851.5	9.2	35.21	1500.74
81.7	21.3	36.53	1527.89	871.5	8.7	35.18	1499.23
87.8	21.0	36.52	1527.33	891.5	8.3	35.15	1498.07
93.9	20.8	36.55	1526.93	911.4	8.0	35.12	1496.94
99.0	20.6	36.56	1526.48	931.3	7.7	35.11	1496.34
114.2	20.2	36.57	1525.49	951.2	7.4	35.10	1495.55
128.4	19.8	36.54	1524.78	971.0	7.1	35.08	1494.62
149.7	19.6	36.53	1524.37	990.8	6.9	35.07	1493.92
170.9	19.3	36.53	1523.92	1010.6	6.6	35.07	1493.32
192.1	19.0	36.52	1523.52	1023.7	6.5	35.06	1492.87
213.3	18.8	36.51	1523.35	1076.1	5.9	35.05	1491.67
234.4	18.7	36.51	1523.28	1128.3	5.6	35.04	1490.93
255.5	18.6	36.50	1523.21	1180.3	5.3	35.03	1490.54
269.5	18.5	36.50	1523.26	1225.5	5.0	35.02	1490.24
290.6	18.4	36.48	1523.16	1270.5	4.9	35.01	1490.37
311.6	18.2	36.48	1523.15	1321.7	4.7	35.00	1490.45
332.5	18.1	36.48	1523.07	1372.7	4.5	34.98	1490.65
353.5	18.0	36.46	1522.98	1423.4	4.4	34.98	1491.02
374.4	17.9	36.44	1523.00	1473.9	4.3	34.97	1491.37
395.2	17.7	36.43	1522.86	1524.1	4.3	34.97	1492.28
409.1	17.6	36.41	1522.79	1574.0	4.3	34.97	1492.91
429.9	17.5	36.38	1522.67	1623.7	4.2	34.96	1493.44
450.6	17.3	36.36	1522.37	1673.1	4.2	34.96	1493.95
471.3	17.0	36.33	1521.97	1722.3	4.1	34.96	1494.33
492.0	16.8	36.28	1521.67	1771.2	4.0	34.95	1494.84
512.7	16.5	36.25	1520.87	1813.8	3.9	34.96	1495.31
533.3	16.1	36.18	1520.15				

LYNCH XBT 553

08/0800Z JUN 87

31° 07' 25" N

076° 07' 23" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.1	25.0	36.19	1535.66	553.9	15.7	36.12	1519.09
8.2	25.1	36.26	1536.12	574.4	15.3	36.07	1518.12
12.3	25.1	36.27	1536.18	588.1	15.2	36.00	1517.78
18.5	25.1	36.27	1536.18	608.6	14.6	35.93	1516.32
24.6	25.0	36.35	1536.29	629.0	14.2	35.88	1515.24
28.6	25.0	36.38	1536.36	649.4	13.8	35.80	1514.23
32.7	25.0	36.43	1536.29	669.8	13.4	35.73	1513.18
36.8	24.5	36.50	1535.42	690.1	12.8	35.68	1511.40
43.0	23.6	36.55	1533.39	710.4	12.5	35.61	1510.55
49.1	23.0	36.57	1531.97	730.7	12.8	35.53	1511.76
53.1	22.6	36.53	1530.98	750.9	12.8	35.49	1512.01
57.2	22.5	36.54	1530.82	771.1	13.4	35.41	1514.23
63.4	22.2	36.54	1530.19	791.2	13.9	35.35	1516.16
69.5	21.9	36.56	1529.33	811.4	13.9	35.31	1516.59
73.5	21.8	36.54	1529.23	831.4	14.1	35.25	1517.34
77.6	21.7	36.53	1528.91	851.5	14.1	35.21	1517.71
81.7	21.6	36.53	1528.74	871.5	14.2	35.18	1518.29
87.8	21.2	36.52	1527.86	891.5	14.1	35.15	1518.26
93.9	21.0	36.55	1527.31	911.4	14.1	35.12	1518.57
99.0	20.9	36.56	1527.36	931.3	14.3	35.11	1519.54
114.2	20.4	36.57	1526.04	951.2	14.3	35.10	1519.93
128.4	20.0	36.54	1525.17	971.0	14.5	35.08	1520.75
149.7	19.6	36.53	1524.55	990.8	14.7	35.07	1521.56
170.9	19.4	36.53	1524.14	1010.6	14.5	35.07	1521.47
192.1	19.1	36.52	1523.72	1023.7	14.5	35.06	1521.60
213.3	18.9	36.51	1523.52	1076.1	14.4	35.05	1522.26
234.4	18.7	36.51	1523.37	1128.3	14.4	35.04	1522.96
255.5	18.6	36.50	1523.18	1180.3	14.4	35.03	1523.79
269.5	18.5	36.50	1523.12	1225.5	14.4	35.02	1524.46
290.6	18.3	36.48	1523.05	1270.5	14.4	35.01	1525.26
311.6	18.2	36.48	1523.09	1321.7	14.5	35.00	1526.32
332.5	18.1	36.48	1523.09	1372.7	14.5	34.98	1527.14
353.5	18.0	36.46	1522.98	1423.4	14.6	34.98	1528.18
374.4	17.8	36.44	1522.86	1473.9	14.6	34.97	1529.09
395.2	17.6	36.43	1522.68	1524.1	14.6	34.97	1529.96
409.1	17.5	36.41	1522.56	1574.0	14.6	34.97	1530.78
429.9	17.3	36.38	1522.21	1623.7	14.7	34.96	1531.81
450.6	17.1	36.36	1521.99	1673.1	14.8	34.96	1532.85
471.3	16.9	36.33	1521.55	1722.3	14.8	34.96	1533.73
492.0	16.6	36.28	1521.10	1771.2	14.9	34.95	1534.84
512.7	16.3	36.25	1520.52	1813.8	15.1	34.96	1536.21
533.3	16.1	36.18	1519.88				

LYNCH XBT 703

03/0808Z JUN 87

31° 01' 01" N

075° 57' 20" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	26.5	36.26	1539.18	254.8	18.5	36.50	1523.05
7.8	26.5	36.27	1539.37	274.6	18.4	36.48	1523.01
13.6	26.4	36.27	1539.13	294.4	18.3	36.48	1523.07
19.4	26.2	36.35	1538.81	314.2	18.3	36.48	1523.27
23.3	26.0	36.38	1538.48	333.8	18.1	36.46	1523.13
27.1	25.3	36.43	1536.96	353.5	18.0	36.44	1523.02
33.0	24.7	36.50	1535.73	373.1	17.8	36.43	1522.86
38.8	24.1	36.55	1534.39	392.7	17.7	36.41	1522.74
42.6	23.8	36.57	1533.76	412.2	17.5	36.38	1522.46
48.5	23.6	36.53	1533.33	431.7	17.2	36.36	1522.04
54.2	23.5	36.54	1533.19	457.6	16.9	36.33	1521.51
58.1	23.2	36.54	1532.51	476.9	16.7	36.28	1520.97
61.9	22.7	36.56	1531.32	496.3	16.4	36.25	1520.46
67.7	22.2	36.54	1530.26	515.6	16.1	36.18	1519.75
73.5	22.0	36.53	1529.68	534.8	15.8	36.12	1518.92
77.4	21.6	36.53	1528.83	554.0	15.4	36.07	1518.11
83.2	21.3	36.52	1527.90	573.2	15.1	36.00	1517.37
88.9	21.0	36.55	1527.31	598.7	14.5	35.93	1515.90
92.7	20.8	36.56	1526.96	617.7	14.0	35.88	1514.41
98.5	20.6	36.57	1526.53	636.8	13.6	35.80	1513.21
114.8	20.0	36.54	1525.03	655.7	12.9	35.73	1511.29
135.0	19.5	36.53	1523.89	674.7	12.6	35.68	1510.32
155.1	19.2	36.53	1523.39	693.6	12.2	35.61	1509.40
175.1	19.0	36.52	1523.08	712.4	11.7	35.53	1507.79
195.1	18.9	36.51	1523.12	737.5	11.1	35.49	1506.08
215.0	18.8	36.51	1523.14	756.2	10.7	35.41	1504.75

LYNCH XBT 705

04/1210Z JUN 87

30° 58' 19" N

076° 01' 46" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	26.5	36.26	1539.32	248.2	18.4	36.50	1522.62
7.8	26.6	36.27	1539.52	268.0	18.3	36.48	1522.62
13.6	26.6	36.27	1539.59	287.8	18.2	36.48	1522.66
19.4	26.4	36.35	1539.45	314.2	18.1	36.48	1522.75
23.3	26.1	36.38	1538.87	333.8	18.0	36.46	1522.67
27.1	26.0	36.43	1538.67	353.5	17.8	36.44	1522.60
33.0	25.5	36.50	1537.73	373.1	17.7	36.43	1522.45
38.8	25.1	36.55	1536.75	392.7	17.5	36.41	1522.24
42.6	24.7	36.57	1535.93	412.2	17.3	36.38	1521.90
48.5	24.1	36.53	1534.58	431.7	17.1	36.36	1521.55
54.2	23.7	36.54	1533.64	451.1	16.9	36.33	1521.27
58.1	23.5	36.54	1533.34	470.5	16.6	36.28	1520.78
61.9	23.3	36.56	1532.76	489.8	16.4	36.25	1520.32
67.7	22.6	36.54	1531.25	509.2	16.0	36.18	1519.31
73.5	22.2	36.53	1530.25	528.4	15.6	36.12	1518.46
77.4	22.1	36.53	1529.97	547.6	15.3	36.07	1517.61
83.2	21.9	36.52	1529.54	573.2	14.7	36.00	1516.02
88.9	21.6	36.55	1528.82	592.3	14.3	35.93	1515.00
92.7	21.4	36.56	1528.53	611.4	13.9	35.88	1514.08
98.5	21.0	36.57	1527.61	630.4	13.5	35.80	1512.86
108.1	20.7	36.54	1526.72	649.4	13.0	35.73	1511.36
128.3	19.9	36.53	1525.01	674.7	12.4	35.68	1509.67
148.4	19.5	36.53	1524.26	693.6	11.7	35.61	1507.76
168.4	19.3	36.52	1523.82	712.4	11.4	35.53	1506.92
188.4	19.0	36.51	1523.34	731.2	10.8	35.49	1505.05
208.4	18.7	36.51	1522.76	750.0	10.3	35.41	1503.51
228.3	18.5	36.50	1522.63				

LYNCH XBT 707

05/0000Z JUN 87

30° 55' 45" N

076° 03' 16" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	26.5	36.19	1539.13	248.2	18.5	36.50	1522.97
7.8	26.5	36.26	1539.32	268.0	18.4	36.50	1523.04
13.6	26.5	36.27	1539.37	287.8	18.3	36.48	1522.98
19.4	26.4	36.27	1539.25	314.2	18.1	36.48	1522.91
23.3	26.2	36.35	1539.06	333.8	18.0	36.48	1522.81
27.1	25.9	36.38	1538.40	353.5	17.9	36.46	1522.74
33.0	25.5	36.43	1537.56	373.1	17.8	36.44	1522.72
38.8	25.2	36.50	1537.03	392.7	17.5	36.43	1522.35
42.6	25.0	36.55	1536.58	412.2	17.4	36.41	1522.17
48.5	24.7	36.57	1535.98	431.7	17.2	36.38	1521.83
54.2	24.3	36.53	1535.20	451.1	16.9	36.36	1521.31
58.1	23.9	36.54	1534.17	470.5	16.6	36.33	1520.85
61.9	23.8	36.54	1534.06	489.8	16.3	36.28	1520.12
67.7	23.4	36.56	1533.32	509.2	15.9	36.25	1519.23
73.5	22.6	36.54	1531.37	528.4	15.6	36.18	1518.50
77.4	22.3	36.53	1530.54	547.6	15.2	36.12	1517.43
83.2	22.0	36.53	1529.95	573.2	14.8	36.07	1516.51
88.9	21.6	36.52	1528.82	592.3	14.3	36.00	1515.24
92.7	21.3	36.55	1528.09	611.4	13.8	35.93	1513.67
98.5	20.8	36.56	1527.09	630.4	13.5	35.88	1512.82
108.1	20.5	36.57	1526.40	649.4	13.0	35.80	1511.63
128.3	20.0	36.54	1525.14	674.7	12.3	35.73	1509.58
148.4	19.4	36.53	1523.99	693.6	11.9	35.68	1508.53
168.4	19.2	36.53	1523.54	712.4	11.4	35.61	1506.83
188.4	19.0	36.52	1523.29	731.2	11.0	35.53	1505.51
208.4	18.8	36.51	1523.01	750.0	10.5	35.49	1504.09
228.3	18.6	36.51	1522.95				

LYNCH XBT 709

05/1558Z JUN 87

30° 54' 06" N

075° 59' 07" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	26.7	36.19	1539.57	248.2	18.5	36.50	1523.03
7.8	26.6	36.26	1539.48	268.0	18.4	36.48	1522.99
13.6	26.2	36.27	1538.76	287.8	18.3	36.48	1523.08
19.4	25.6	36.27	1537.40	314.2	18.3	36.48	1523.27
23.3	25.4	36.35	1537.01	333.8	18.1	36.46	1523.16
27.1	24.6	36.38	1535.33	353.5	18.0	36.44	1522.96
33.0	23.9	36.43	1533.68	373.1	17.8	36.43	1522.86
38.8	23.6	36.50	1533.10	392.7	17.6	36.41	1522.65
42.6	23.5	36.55	1533.10	412.2	17.5	36.38	1522.39
48.5	23.2	36.57	1532.40	431.7	17.3	36.36	1522.22
54.2	22.3	36.53	1530.07	451.1	17.1	36.33	1521.85
58.1	22.1	36.54	1529.73	470.5	16.8	36.28	1521.32
61.9	22.1	36.54	1529.72	489.8	16.6	36.25	1520.93
67.7	21.7	36.56	1528.98	509.2	16.3	36.18	1520.38
73.5	21.2	36.54	1527.57	528.4	15.8	36.12	1519.08
77.4	21.1	36.53	1527.29	547.6	15.4	36.07	1518.10
83.2	20.8	36.53	1526.74	573.2	15.1	36.00	1517.46
88.9	20.6	36.52	1526.21	592.3	14.5	35.93	1515.75
92.7	20.5	36.55	1525.97	611.4	14.0	35.88	1514.31
98.5	20.3	36.55	1525.50	630.4	13.7	35.80	1513.55
108.1	20.5	36.54	1526.39	649.4	13.3	35.73	1512.36
128.3	20.1	36.53	1525.38	674.7	12.9	35.68	1511.31
148.4	19.6	36.53	1524.42	693.6	12.3	35.61	1509.62
168.4	19.1	36.52	1523.48	712.4	11.8	35.53	1508.17
188.4	19.0	36.51	1523.30	731.2	11.3	35.49	1506.68
208.4	18.8	36.51	1523.17	750.0	10.8	35.41	1505.18
228.3	18.7	36.50	1523.10				

LYNCH XBT 711

06/0800Z JUN 87

30° 55' 21" N

076° 03' 59" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.65	248.2	18.4	36.50	1522.65
7.8	25.0	36.26	1535.85	268.0	18.3	36.50	1522.61
13.6	25.0	36.27	1535.86	287.8	18.2	36.48	1522.59
19.4	24.3	36.27	1534.29	314.2	18.0	36.48	1522.55
23.3	23.9	36.35	1533.56	333.8	17.9	36.48	1522.43
27.1	23.6	36.38	1532.76	353.5	17.7	36.46	1522.28
33.0	22.8	36.43	1530.94	373.1	17.6	36.44	1522.14
38.8	22.4	36.50	1530.20	392.7	17.4	36.43	1521.91
42.6	22.2	36.55	1529.78	412.2	17.2	36.41	1521.57
48.5	21.9	36.57	1529.00	431.7	16.9	36.38	1521.02
54.2	21.5	36.53	1528.20	451.1	16.6	36.36	1520.50
58.1	21.5	36.54	1528.11	470.5	16.3	36.33	1519.85
61.9	21.5	36.54	1528.20	489.8	15.9	36.28	1518.93
67.7	21.7	36.56	1528.77	509.2	15.6	36.25	1518.27
73.5	21.4	36.54	1528.20	528.4	15.3	36.18	1517.51
77.4	21.4	36.53	1528.06	547.6	15.0	36.12	1516.75
83.2	21.2	36.53	1527.72	573.2	14.3	36.07	1515.01
88.9	21.0	36.52	1527.31	592.3	13.8	36.00	1513.62
92.7	20.9	36.55	1527.05	611.4	13.6	35.93	1512.90
98.5	20.5	36.56	1526.20	630.4	13.1	35.88	1511.76
108.1	20.2	36.57	1525.40	649.4	12.6	35.80	1510.19
128.3	19.6	36.54	1524.23	674.7	12.0	35.73	1508.64
148.4	19.2	36.53	1523.34	693.6	11.6	35.68	1507.39
168.4	19.0	36.53	1523.06	712.4	11.0	35.61	1505.61
188.4	18.8	36.52	1522.95	731.2	10.6	35.53	1504.42
208.4	18.7	36.51	1522.80	750.0	10.1	35.49	1502.80
228.3	18.5	36.51	1522.70				

LYNCH XBT 713

07/0010Z JUN 87

30° 53' 41" N

076° 08' 09" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.3	36.19	1536.49	248.2	18.4	36.50	1522.77
7.8	25.4	36.26	1536.80	268.0	18.3	36.50	1522.69
13.6	25.4	36.27	1536.81	287.8	18.2	36.48	1522.68
19.4	25.3	36.27	1536.83	314.2	18.0	36.48	1522.58
23.3	25.3	36.35	1536.94	333.8	17.9	36.48	1522.54
27.1	25.3	36.38	1537.00	353.5	17.8	36.46	1522.43
33.0	24.6	36.43	1535.57	373.1	17.6	36.44	1522.31
38.8	24.3	36.50	1534.92	392.7	17.4	36.43	1522.10
42.6	23.6	36.55	1533.34	412.2	17.2	36.41	1521.63
48.5	23.0	36.57	1531.86	431.7	17.0	36.38	1521.29
54.2	21.8	36.53	1528.83	451.1	16.6	36.36	1520.53
58.1	21.6	36.54	1528.37	470.5	16.4	36.33	1519.95
61.9	21.5	36.54	1528.31	489.8	16.0	36.28	1519.14
67.7	21.4	36.56	1528.12	509.2	15.7	36.25	1518.47
73.5	21.3	36.54	1527.78	528.4	15.4	36.18	1517.70
77.4	21.1	36.53	1527.29	547.6	14.9	36.12	1516.58
83.2	20.8	36.53	1526.72	573.2	14.4	36.07	1515.07
88.9	20.7	36.52	1526.56	592.3	14.2	36.00	1514.69
92.7	20.6	36.55	1526.38	611.4	13.7	35.93	1513.26
98.5	20.4	36.56	1525.93	630.4	13.1	35.88	1511.70
108.1	20.5	36.57	1526.24	649.4	12.8	35.80	1510.91
128.3	19.9	36.54	1525.10	674.7	12.3	35.73	1509.41
148.4	19.5	36.53	1524.07	693.6	11.9	35.68	1508.25
168.4	19.1	36.53	1523.29	712.4	11.3	35.61	1506.62
188.4	18.9	36.52	1523.07	731.2	10.8	35.53	1505.05
208.4	18.7	36.51	1522.92	750.0	10.4	35.49	1503.77
228.3	18.6	36.51	1522.78				

LYNCH XBT 714

07/0400Z JUN 87

30° 57' 23" N

076° 04' 12" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.12	248.2	18.3	36.50	1522.39
7.8	25.2	36.26	1536.37	268.0	18.2	36.50	1522.35
13.6	25.2	36.27	1536.46	287.8	18.1	36.48	1522.37
19.4	25.2	36.27	1536.50	314.2	18.0	36.48	1522.48
23.3	25.0	36.35	1536.22	333.8	17.9	36.48	1522.40
27.1	24.3	36.38	1534.48	353.5	17.7	36.46	1522.24
33.0	23.5	36.43	1532.81	373.1	17.5	36.44	1522.08
38.8	23.0	36.50	1531.57	392.7	17.4	36.43	1521.92
42.6	22.7	36.55	1531.11	412.2	17.2	36.41	1521.60
48.5	22.0	36.57	1529.26	431.7	17.0	36.38	1521.35
54.2	21.5	36.53	1528.07	451.1	16.8	36.36	1521.01
58.1	21.3	36.54	1527.74	470.5	16.5	36.33	1520.41
61.9	21.1	36.54	1527.25	489.8	16.1	36.28	1519.57
67.7	20.7	36.56	1526.30	509.2	15.8	36.25	1518.81
73.5	20.6	36.54	1526.01	528.4	15.4	36.18	1517.73
77.4	20.6	36.53	1525.92	547.6	15.0	36.12	1516.83
83.2	20.4	36.53	1525.62	573.2	14.6	36.07	1515.76
88.9	20.3	36.52	1525.34	592.3	14.2	36.00	1514.66
92.7	20.2	36.55	1525.13	611.4	13.7	35.93	1513.46
98.5	20.1	36.56	1525.06	630.4	13.3	35.88	1512.33
108.1	19.9	36.57	1524.77	649.4	12.9	35.80	1511.23
128.3	19.5	36.54	1523.78	674.7	12.2	35.73	1509.07
148.4	19.2	36.53	1523.29	693.6	11.6	35.68	1507.46
168.4	19.0	36.53	1523.04	712.4	11.2	35.61	1506.12
188.4	18.8	36.52	1522.95	731.2	10.5	35.53	1503.95
208.4	18.7	36.51	1522.74	750.0	10.2	35.49	1503.00
228.3	18.5	36.51	1522.50				

LYNCH XBT 715

07/0430Z JUN 87

30° 57' 22" N

076° 06' 38" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.3	36.19	1536.31	228.3	18.5	36.50	1522.72
7.8	25.3	36.26	1536.56	248.2	18.4	36.50	1522.53
13.6	25.3	36.27	1536.62	268.0	18.2	36.48	1522.33
19.4	25.3	36.27	1536.72	287.8	18.1	36.48	1522.27
23.3	25.1	36.35	1536.30	314.2	18.0	36.48	1522.39
27.1	24.7	36.38	1535.62	333.8	17.9	36.46	1522.46
33.0	24.1	36.43	1534.34	353.5	17.7	36.44	1522.11
38.8	23.7	36.50	1533.40	373.1	17.5	36.43	1521.98
42.6	23.1	36.55	1531.97	392.7	17.2	36.41	1521.47
48.5	22.2	36.57	1529.84	412.2	17.1	36.38	1521.37
54.2	21.6	36.53	1528.30	431.7	16.9	36.36	1521.07
58.1	21.4	36.54	1527.84	451.1	16.7	36.33	1520.58
61.9	21.2	36.54	1527.54	470.5	16.4	36.28	1520.04
67.7	21.1	36.56	1527.15	489.8	16.0	36.25	1519.16
73.5	20.9	36.54	1526.74	509.2	15.7	36.18	1518.37
77.4	20.7	36.53	1526.35	528.4	15.3	36.12	1517.46
83.2	20.6	36.53	1526.08	547.6	14.9	36.07	1516.30
88.9	20.4	36.52	1525.56	573.2	14.5	36.00	1515.37
92.7	20.3	36.55	1525.51	592.3	13.9	35.93	1513.84
98.5	20.2	36.56	1525.23	611.4	13.6	35.88	1512.97
90.8	20.4	36.57	1525.64	630.4	13.2	35.80	1511.80
108.1	20.0	36.54	1525.04	649.4	12.7	35.73	1510.31
128.3	19.6	36.53	1524.19	674.7	12.0	35.68	1508.33
148.4	19.4	36.53	1523.78	693.6	11.6	35.61	1507.14
168.4	19.1	36.52	1523.27	712.4	11.2	35.53	1505.91
188.4	18.9	36.51	1523.00	731.2	10.7	35.49	1504.45
208.4	18.7	36.51	1522.88	750.0	10.1	35.41	1502.63

LYNCH XBT 716

07/0500Z JUN 87

30° 55' 53" N
076° 07' 35" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.14	228.3	18.6	36.50	1522.78
7.8	25.2	36.26	1536.35	248.2	18.4	36.50	1522.60
13.6	25.2	36.27	1536.40	268.0	18.2	36.48	1522.36
19.4	25.0	36.27	1536.00	287.8	18.1	36.48	1522.45
23.3	24.6	36.35	1535.15	314.2	18.0	36.48	1522.56
27.1	24.4	36.38	1534.80	333.8	17.8	36.46	1522.14
33.0	23.9	36.43	1533.70	353.5	17.7	36.44	1522.23
38.8	23.6	36.50	1533.05	373.1	17.6	36.43	1522.27
42.6	23.0	36.55	1531.89	392.7	17.4	36.41	1522.03
48.5	22.2	36.57	1529.93	412.2	17.2	36.38	1521.75
54.2	21.6	36.53	1528.41	431.7	17.1	36.36	1521.47
58.1	21.4	36.54	1527.84	451.1	16.8	36.33	1520.91
61.9	21.3	36.54	1527.78	470.5	16.5	36.28	1520.46
67.7	21.1	36.56	1527.29	489.8	16.3	36.25	1519.87
73.5	20.9	36.54	1526.79	509.2	15.9	36.18	1519.06
77.4	20.8	36.53	1526.62	528.4	15.5	36.12	1518.09
83.2	20.6	36.53	1526.06	547.6	15.2	36.07	1517.24
88.9	20.4	36.52	1525.69	573.2	14.7	36.00	1516.12
92.7	20.4	36.55	1525.65	592.3	14.4	35.93	1515.29
98.5	20.3	36.56	1525.48	611.4	13.9	35.88	1514.03
90.8	20.4	36.57	1525.76	630.4	13.4	35.80	1512.66
108.1	20.1	36.54	1525.06	649.4	13.0	35.73	1511.48
128.3	19.8	36.53	1524.67	674.7	12.4	35.68	1509.62
148.4	19.3	36.53	1523.64	693.6	11.9	35.61	1508.38
168.4	19.1	36.52	1523.28	712.4	11.5	35.53	1507.06
188.4	18.9	36.51	1523.09	731.2	10.9	35.49	1505.22
208.4	18.7	36.51	1522.86	750.0	10.5	35.41	1503.92

LYNCH XBT 717

07/0530Z JUN 87

30° 55' 11" N

076° 08' 05" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.88	228.3	18.5	36.50	1522.63
7.8	25.2	36.26	1536.33	248.2	18.4	36.50	1522.55
13.6	25.2	36.27	1536.39	268.0	18.3	36.48	1522.56
19.4	25.2	36.27	1536.46	287.8	18.1	36.48	1522.42
23.3	24.7	36.35	1535.39	314.2	18.0	36.48	1522.45
27.1	24.4	36.38	1534.92	333.8	17.9	36.46	1522.38
33.0	23.9	36.43	1533.85	353.5	17.8	36.44	1522.39
38.8	23.4	36.50	1532.55	373.1	17.6	36.43	1522.30
42.6	22.9	36.55	1531.57	392.7	17.4	36.41	1522.00
48.5	22.2	36.57	1529.79	412.2	17.3	36.38	1521.84
54.2	21.7	36.53	1528.49	431.7	17.0	36.36	1521.21
58.1	21.5	36.54	1528.03	451.1	16.9	36.33	1521.18
61.9	21.3	36.54	1527.59	470.5	16.7	36.28	1520.87
67.7	21.0	36.56	1526.95	489.8	16.3	36.25	1520.08
73.5	20.9	36.54	1526.68	509.2	16.0	36.18	1519.20
77.4	20.7	36.53	1526.43	528.4	15.6	36.12	1518.37
83.2	20.6	36.53	1526.10	547.6	15.3	36.07	1517.55
88.9	20.5	36.52	1525.91	573.2	14.7	36.00	1516.16
92.7	20.4	36.55	1525.89	592.3	14.3	35.93	1514.94
98.5	20.3	36.56	1525.53	611.4	13.9	35.88	1513.84
90.8	20.4	36.57	1525.87	630.4	13.5	35.80	1512.73
108.1	20.1	36.54	1525.09	649.4	13.0	35.73	1511.34
128.3	19.9	36.53	1524.93	674.7	12.2	35.68	1509.08
148.4	19.4	36.53	1523.90	693.6	11.9	35.61	1508.24
168.4	19.1	36.52	1523.34	712.4	11.4	35.53	1506.64
188.4	18.9	36.51	1523.00	731.2	11.0	35.49	1505.72
208.4	18.7	36.51	1522.85	750.0	10.5	35.41	1503.94

LYNCH XBT 718

07/0600Z JUN 87

30° 54' 35" N

076° 08' 41" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.15	228.3	19.5	36.50	1525.40
7.8	25.2	36.26	1536.35	248.2	19.7	36.50	1526.27
13.6	25.2	36.27	1536.47	268.0	20.3	36.48	1528.25
19.4	25.0	36.27	1536.12	287.8	20.3	36.48	1528.51
23.3	24.7	36.35	1535.51	314.2	20.1	36.48	1528.44
27.1	24.5	36.38	1535.01	333.8	20.2	36.46	1529.03
33.0	23.9	36.43	1533.70	353.5	20.4	36.44	1529.75
38.8	23.0	36.50	1531.72	373.1	20.2	36.43	1529.47
42.6	22.4	36.55	1530.29	392.7	20.8	36.41	1531.41
48.5	21.8	36.57	1528.92	412.2	20.9	36.38	1532.12
54.2	21.5	36.53	1527.96	431.7	20.9	36.36	1532.43
58.1	21.3	36.54	1527.55	451.1	21.1	36.33	1533.05
61.9	21.2	36.54	1527.33	470.5	21.0	36.28	1533.06
67.7	20.9	36.56	1526.86	489.8	20.8	36.25	1532.78
73.5	20.8	36.54	1526.44	509.2	20.6	36.18	1532.47
77.4	20.7	36.53	1526.27	528.4	20.3	36.12	1531.98
83.2	20.6	36.53	1526.10	547.6	20.0	36.07	1531.49
88.9	20.5	36.52	1525.88	573.2	19.6	36.00	1530.61
92.7	20.4	36.55	1525.75	592.3	19.4	35.93	1530.31
98.5	20.3	36.56	1525.48	611.4	19.0	35.88	1529.45
90.8	20.4	36.57	1525.83	630.4	18.6	35.80	1528.55
108.1	20.0	36.54	1524.82	649.4	18.6	35.73	1528.64
128.3	19.9	36.53	1524.83	674.7	18.9	35.68	1529.95
148.4	19.5	36.53	1524.06	693.6	18.9	35.61	1530.23
168.4	19.4	36.52	1524.17	712.4	19.1	35.53	1530.94
188.4	19.5	36.51	1524.88	731.2	18.4	35.49	1529.36
208.4	19.5	36.51	1525.13	750.0	18.5	35.41	1529.77

LYNCH XBT 719

07/0630Z JUN 87

30° 54' 01" N

076° 09' 16" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.04	228.3	18.5	36.50	1522.72
7.8	25.2	36.26	1536.33	248.2	18.4	36.50	1522.68
13.6	25.2	36.27	1536.43	268.0	18.3	36.48	1522.53
19.4	25.2	36.27	1536.43	287.8	18.1	36.48	1522.37
23.3	24.6	36.35	1535.31	314.2	18.0	36.48	1522.52
27.1	24.3	36.38	1534.55	333.8	17.9	36.46	1522.61
33.0	23.8	36.43	1533.41	353.5	17.8	36.44	1522.49
38.8	22.9	36.50	1531.35	373.1	17.6	36.43	1522.15
42.6	22.4	36.55	1530.14	392.7	17.4	36.41	1522.00
48.5	21.8	36.57	1528.74	412.2	17.3	36.38	1521.90
54.2	21.4	36.53	1527.91	431.7	17.0	36.36	1521.24
58.1	21.3	36.54	1527.55	451.1	17.0	36.33	1521.45
61.9	21.1	36.54	1527.19	470.5	16.7	36.28	1520.84
67.7	20.9	36.56	1526.82	489.8	16.3	36.25	1519.93
73.5	20.8	36.54	1526.42	509.2	16.0	36.18	1519.18
77.4	20.7	36.53	1526.33	528.4	15.6	36.12	1518.34
83.2	20.5	36.53	1525.89	547.6	15.2	36.07	1517.25
88.9	20.5	36.52	1525.86	573.2	14.7	36.00	1516.07
92.7	20.3	36.55	1525.59	592.3	14.4	35.93	1515.19
98.5	20.2	36.56	1525.38	611.4	13.9	35.88	1513.84
90.8	20.4	36.57	1525.69	630.4	13.3	35.80	1512.36
108.1	20.1	36.54	1525.15	649.4	12.8	35.73	1510.84
128.3	19.9	36.53	1524.93	674.7	12.2	35.68	1509.23
148.4	19.3	36.53	1523.59	693.6	11.8	35.61	1508.03
168.4	19.0	36.52	1523.13	712.4	11.3	35.53	1506.50
188.4	18.8	36.51	1522.92	731.2	10.8	35.49	1505.01
208.4	18.7	36.51	1522.75	750.0	10.3	35.41	1503.44

LYNCH XBT 720

07/0700Z JUN 87

30° 55' 06" N

076° 08' 07" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.80	228.3	18.5	36.50	1522.72
7.8	25.2	36.26	1536.23	248.2	18.4	36.50	1522.55
13.6	25.2	36.27	1536.30	268.0	18.3	36.48	1522.59
19.4	25.2	36.27	1536.39	287.8	18.1	36.48	1522.37
23.3	24.8	36.35	1535.70	314.2	17.9	36.48	1522.33
27.1	24.3	36.38	1534.60	333.8	17.8	36.46	1522.32
33.0	23.7	36.43	1533.27	353.5	17.7	36.44	1522.20
38.8	23.0	36.50	1531.75	373.1	17.6	36.43	1522.21
42.6	22.2	36.55	1529.80	392.7	17.4	36.41	1521.93
48.5	21.6	36.57	1528.36	412.2	17.2	36.38	1521.58
54.2	21.3	36.53	1527.48	431.7	16.9	36.36	1521.00
58.1	21.2	36.54	1527.34	451.1	16.8	36.33	1520.88
61.9	21.0	36.54	1526.87	470.5	16.5	36.28	1520.36
67.7	20.8	36.56	1526.59	489.8	16.2	36.25	1519.65
73.5	20.7	36.54	1526.20	509.2	15.8	36.18	1518.71
77.4	20.6	36.53	1526.03	528.4	15.5	36.12	1517.96
83.2	20.5	36.53	1525.75	547.6	15.1	36.07	1517.00
88.9	20.3	36.52	1525.37	573.2	14.5	36.00	1515.51
92.7	20.3	36.55	1525.51	592.3	14.2	35.93	1514.71
98.5	20.1	36.56	1525.14	611.4	13.7	35.88	1513.32
90.8	20.3	36.57	1525.47	630.4	13.2	35.80	1511.93
108.1	19.9	36.54	1524.51	649.4	12.7	35.73	1510.29
128.3	19.7	36.53	1524.47	674.7	12.0	35.68	1508.55
148.4	19.3	36.53	1523.59	693.6	11.7	35.61	1507.48
168.4	19.0	36.52	1523.18	712.4	11.2	35.53	1506.12
188.4	18.9	36.51	1523.03	731.2	10.7	35.49	1504.48
208.4	18.7	36.51	1522.88	750.0	10.0	35.41	1502.43

LYNCH XBT 721

07/0730Z JUN 87

30° 55' 55" N

076° 07' 08" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1536.02	248.2	18.5	36.50	1522.88
7.8	25.1	36.26	1535.99	268.0	18.3	36.50	1522.61
13.6	25.1	36.27	1536.14	287.8	18.1	36.48	1522.46
19.4	25.1	36.27	1536.20	314.2	18.1	36.48	1522.80
23.3	25.1	36.35	1536.34	333.8	18.0	36.48	1522.83
27.1	25.0	36.38	1536.33	353.5	17.9	36.46	1522.77
33.0	24.3	36.43	1534.71	373.1	17.7	36.44	1522.55
38.8	23.9	36.50	1533.99	392.7	17.6	36.43	1522.58
42.6	23.5	36.55	1533.10	412.2	17.5	36.41	1522.43
48.5	22.8	36.57	1531.29	431.7	17.3	36.38	1522.21
54.2	21.8	36.53	1528.98	451.1	17.2	36.36	1522.11
58.1	21.5	36.54	1528.11	470.5	16.9	36.33	1521.64
61.9	21.3	36.54	1527.70	489.8	16.8	36.28	1521.51
67.7	21.1	36.56	1527.19	509.2	16.5	36.25	1520.89
73.5	20.8	36.54	1526.60	528.4	16.2	36.18	1520.35
77.4	20.7	36.53	1526.35	547.6	15.9	36.12	1519.45
83.2	20.5	36.53	1525.96	573.2	15.4	36.07	1518.26
88.9	20.5	36.52	1526.02	592.3	15.0	36.00	1517.41
92.7	20.3	36.55	1525.62	611.4	14.6	35.93	1516.30
98.5	20.3	36.56	1525.50	630.4	14.2	35.88	1515.10
108.1	20.0	36.57	1525.07	649.4	13.9	35.80	1514.34
128.3	19.7	36.54	1524.48	674.7	13.3	35.73	1512.75
148.4	19.5	36.53	1524.30	693.6	12.9	35.68	1511.71
168.4	19.2	36.53	1523.57	712.4	12.4	35.61	1510.16
188.4	18.9	36.52	1523.18	731.2	11.9	35.53	1508.71
208.4	18.8	36.51	1523.17	750.0	11.5	35.49	1507.55
228.3	18.7	36.51	1523.04				

LYNCH XBT 722

07/0800Z JUN 87

30° 54' 45" N

076° 06' 34" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.83	228.3	18.6	36.50	1522.89
7.8	25.1	36.26	1535.99	248.2	18.5	36.50	1522.89
13.6	25.1	36.27	1536.09	268.0	18.4	36.48	1522.85
19.4	25.1	36.27	1536.17	287.8	18.3	36.48	1522.95
23.3	25.1	36.35	1536.32	314.2	18.2	36.48	1522.98
27.1	25.1	36.38	1536.41	333.8	18.1	36.46	1522.99
33.0	25.0	36.43	1536.46	353.5	17.9	36.44	1522.83
38.8	24.1	36.50	1534.33	373.1	17.8	36.43	1522.80
42.6	23.5	36.55	1533.05	392.7	17.6	36.41	1522.63
48.5	22.8	36.57	1531.44	412.2	17.5	36.38	1522.49
54.2	22.2	36.53	1530.02	431.7	17.3	36.36	1522.28
58.1	22.0	36.54	1529.52	451.1	17.2	36.33	1522.05
61.9	21.7	36.54	1528.83	470.5	17.0	36.28	1521.74
67.7	21.4	36.56	1528.15	489.8	16.7	36.25	1521.29
73.5	21.0	36.54	1527.17	509.2	16.4	36.18	1520.51
77.4	20.8	36.53	1526.62	528.4	16.1	36.12	1519.97
83.2	20.6	36.53	1526.12	547.6	15.8	36.07	1519.12
88.9	20.5	36.52	1525.86	573.2	15.3	36.00	1517.84
92.7	20.4	36.55	1525.65	592.3	14.9	35.93	1516.88
98.5	20.3	36.56	1525.53	611.4	14.6	35.88	1516.13
90.8	20.4	36.57	1525.83	630.4	14.1	35.80	1514.91
108.1	20.1	36.54	1525.15	649.4	13.7	35.73	1513.90
128.3	19.7	36.53	1524.35	674.7	13.2	35.68	1512.37
148.4	19.4	36.53	1523.81	693.6	12.9	35.61	1511.56
168.4	19.1	36.52	1523.44	712.4	12.3	35.53	1509.96
188.4	18.9	36.51	1523.23	731.2	11.9	35.49	1508.67
208.4	18.8	36.51	1523.08	750.0	11.4	35.41	1507.40

LYNCH XBT 723

07/0830Z JUN 87

30° 52' 44" N

076° 06' 26" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.71	228.3	18.6	36.50	1522.86
7.8	25.0	36.26	1535.83	248.2	18.5	36.50	1522.82
13.6	25.0	36.27	1535.91	268.0	18.4	36.48	1522.79
19.4	25.4	36.27	1536.88	287.8	18.2	36.48	1522.72
23.3	25.4	36.35	1537.22	314.2	18.1	36.48	1522.68
27.1	25.1	36.38	1536.48	333.8	17.9	36.46	1522.58
33.0	23.8	36.43	1533.40	353.5	17.8	36.44	1522.43
38.8	22.9	36.50	1531.47	373.1	17.7	36.43	1522.50
42.6	22.7	36.55	1531.11	392.7	17.5	36.41	1522.31
48.5	22.2	36.57	1529.97	412.2	17.4	36.38	1522.17
54.2	21.9	36.53	1529.11	431.7	17.2	36.36	1521.88
58.1	21.8	36.54	1528.89	451.1	16.9	36.33	1521.42
61.9	21.6	36.54	1528.38	470.5	16.6	36.28	1520.76
67.7	21.1	36.56	1527.22	489.8	16.3	36.25	1520.14
73.5	20.9	36.54	1526.82	509.2	16.0	36.18	1519.20
77.4	20.8	36.53	1526.46	528.4	15.6	36.12	1518.27
83.2	20.7	36.53	1526.42	547.6	15.1	36.07	1517.13
88.9	20.5	36.52	1525.88	573.2	14.5	36.00	1515.54
92.7	20.4	36.55	1525.75	592.3	14.2	35.93	1514.61
98.5	20.3	36.56	1525.69	611.4	13.8	35.88	1513.58
90.8	20.5	36.57	1526.00	630.4	13.4	35.80	1512.43
108.1	20.0	36.54	1524.98	649.4	12.8	35.73	1510.93
128.3	19.7	36.53	1524.42	674.7	12.1	35.68	1508.76
148.4	19.3	36.53	1523.59	693.6	11.6	35.61	1507.17
168.4	19.1	36.52	1523.28	712.4	11.1	35.53	1505.74
188.4	18.9	36.51	1523.12	731.2	10.7	35.49	1504.52
208.4	18.7	36.51	1522.86	750.0	10.3	35.41	1503.33

LYNCH XBT 724

07/0900Z JUN 87

30° 50' 40" N

076° 08' 41" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.69	248.2	18.4	36.50	1522.71
7.8	25.0	36.26	1535.87	268.0	18.2	36.50	1522.43
13.6	25.0	36.27	1535.94	287.8	18.1	36.48	1522.52
19.4	25.0	36.27	1536.00	314.2	18.0	36.48	1522.62
23.3	24.9	36.35	1535.96	333.8	17.9	36.48	1522.66
27.1	24.1	36.38	1534.07	353.5	17.8	36.46	1522.58
33.0	23.2	36.43	1532.13	373.1	17.7	36.44	1522.57
38.8	22.8	36.50	1531.22	392.7	17.6	36.43	1522.51
42.6	22.6	36.55	1530.70	412.2	17.4	36.41	1522.29
48.5	22.2	36.57	1529.82	431.7	17.2	36.38	1522.01
54.2	21.8	36.53	1528.77	451.1	16.9	36.36	1521.37
58.1	21.5	36.54	1528.18	470.5	16.7	36.33	1520.86
61.9	21.2	36.54	1527.33	489.8	16.3	36.28	1520.15
67.7	20.9	36.56	1526.79	509.2	16.0	36.25	1519.50
73.5	20.8	36.54	1526.42	528.4	15.7	36.18	1518.69
77.4	20.6	36.53	1526.06	547.6	15.3	36.12	1517.58
83.2	20.5	36.53	1525.87	573.2	14.7	36.07	1516.16
88.9	20.4	36.52	1525.69	592.3	14.3	36.00	1514.95
92.7	20.3	36.55	1525.51	611.4	13.8	35.93	1513.77
98.5	20.1	36.56	1525.20	630.4	13.4	35.88	1512.59
108.1	20.1	36.57	1525.29	649.4	12.9	35.80	1511.11
128.3	19.6	36.54	1524.10	674.7	12.2	35.73	1509.19
148.4	19.3	36.53	1523.49	693.6	11.7	35.68	1507.60
168.4	19.0	36.53	1523.19	712.4	11.3	35.61	1506.67
188.4	18.9	36.52	1522.98	731.2	10.9	35.53	1505.23
208.4	18.7	36.51	1522.74	750.0	10.5	35.49	1504.25
228.3	18.5	36.51	1522.73				

LYNCH XBT 725

07/0930Z JUN 87

30° 49' 38" N

076° 09' 59" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.93	228.3	18.6	36.50	1522.86
7.8	25.1	36.26	1536.09	248.2	18.5	36.50	1522.83
13.6	25.0	36.27	1536.04	268.0	18.3	36.48	1522.76
19.4	25.1	36.27	1536.20	287.8	18.2	36.48	1522.71
23.3	24.9	36.35	1536.01	314.2	18.1	36.48	1522.75
27.1	24.0	36.38	1533.80	333.8	18.0	36.46	1522.67
33.0	23.3	36.43	1532.16	353.5	17.9	36.44	1522.77
38.8	22.7	36.50	1530.89	373.1	17.8	36.43	1522.71
42.6	22.4	36.55	1530.37	392.7	17.6	36.41	1522.60
48.5	22.1	36.57	1529.68	412.2	17.5	36.38	1522.46
54.2	21.8	36.53	1528.83	431.7	17.3	36.36	1522.10
58.1	21.3	36.54	1527.63	451.1	17.0	36.33	1521.60
61.9	21.1	36.54	1527.27	470.5	16.8	36.28	1521.16
67.7	20.9	36.56	1526.83	489.8	16.5	36.25	1520.63
73.5	20.7	36.54	1526.36	509.2	16.1	36.18	1519.66
77.4	20.7	36.53	1526.38	528.4	15.7	36.12	1518.74
83.2	20.6	36.53	1526.19	547.6	15.3	36.07	1517.71
88.9	20.4	36.52	1525.75	573.2	14.7	36.00	1516.01
92.7	20.4	36.55	1525.65	592.3	14.4	35.93	1515.19
98.5	20.4	36.56	1525.77	611.4	13.9	35.88	1513.87
90.8	20.5	36.57	1525.91	630.4	13.4	35.80	1512.59
108.1	20.3	36.54	1525.86	649.4	13.0	35.73	1511.43
128.3	19.7	36.53	1524.46	674.7	12.4	35.68	1509.74
148.4	19.3	36.53	1523.53	693.6	11.9	35.61	1508.41
168.4	19.0	36.52	1523.14	712.4	11.5	35.53	1507.13
188.4	18.8	36.51	1522.89	731.2	11.0	35.49	1505.72
208.4	18.7	36.51	1522.86	750.0	10.6	35.41	1504.33

LYNCH XBT 726

07/1000Z JUN 87

30° 49' 12" N

076° 10' 54" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.99	228.3	18.6	36.50	1522.80
7.8	25.1	36.26	1536.14	248.2	18.4	36.50	1522.76
13.6	25.1	36.27	1536.19	268.0	18.3	36.48	1522.59
19.4	25.1	36.27	1536.22	287.8	18.2	36.48	1522.74
23.3	25.1	36.35	1536.41	314.2	18.1	36.48	1522.79
27.1	24.4	36.38	1534.80	333.8	18.0	36.46	1522.76
33.0	23.4	36.43	1532.47	353.5	17.8	36.44	1522.64
38.8	23.0	36.50	1531.62	373.1	17.7	36.43	1522.59
42.6	22.9	36.55	1531.54	392.7	17.5	36.41	1522.37
48.5	22.3	36.57	1530.04	412.2	17.4	36.38	1522.14
54.2	21.7	36.53	1528.64	431.7	17.1	36.36	1521.55
58.1	21.4	36.54	1527.76	451.1	16.8	36.33	1521.03
61.9	21.2	36.54	1527.46	470.5	16.5	36.28	1520.40
67.7	20.9	36.56	1526.85	489.8	16.2	36.25	1519.68
73.5	20.7	36.54	1526.39	509.2	15.8	36.18	1518.67
77.4	20.8	36.53	1526.46	528.4	15.5	36.12	1517.90
83.2	20.6	36.53	1526.10	547.6	15.0	36.07	1516.75
88.9	20.6	36.52	1526.10	573.2	14.5	36.00	1515.59
92.7	20.7	36.55	1526.62	592.3	14.1	35.93	1514.45
98.5	20.7	36.56	1526.58	611.4	13.7	35.88	1513.27
90.8	20.6	36.57	1526.37	630.4	13.3	35.80	1512.07
108.1	20.3	36.54	1525.80	649.4	12.8	35.73	1510.69
128.3	19.7	36.53	1524.40	674.7	12.2	35.68	1508.98
148.4	19.3	36.53	1523.56	693.6	11.7	35.61	1507.69
168.4	19.0	36.52	1523.21	712.4	11.3	35.53	1506.33
188.4	18.8	36.51	1522.95	731.2	10.8	35.49	1504.98
208.4	18.7	36.51	1522.92	750.0	10.3	35.41	1503.53

LYNCH XBT 727

07/1030Z JUN 87

30° 48' 10" N

076° 10' 54" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	24.9	36.19	1535.49	228.3	18.6	36.50	1522.89
7.8	25.1	36.26	1535.95	248.2	18.5	36.50	1522.79
13.6	25.0	36.27	1536.03	268.0	18.3	36.48	1522.59
19.4	25.0	36.27	1536.08	287.8	18.2	36.48	1522.64
23.3	24.4	36.35	1534.78	314.2	18.0	36.48	1522.65
27.1	23.9	36.38	1533.70	333.8	17.9	36.46	1522.61
33.0	23.3	36.43	1532.29	353.5	17.8	36.44	1522.52
38.8	22.7	36.50	1530.89	373.1	17.7	36.43	1522.45
42.6	22.5	36.55	1530.57	392.7	17.5	36.41	1522.27
48.5	22.2	36.57	1529.83	412.2	17.3	36.38	1521.93
54.2	21.6	36.53	1528.33	431.7	17.1	36.36	1521.56
58.1	21.3	36.54	1527.74	451.1	16.9	36.33	1521.21
61.9	21.1	36.54	1527.22	470.5	16.6	36.28	1520.52
67.7	21.0	36.56	1527.06	489.8	16.2	36.25	1519.68
73.5	20.8	36.54	1526.60	509.2	15.9	36.18	1519.08
77.4	20.7	36.53	1526.43	528.4	15.6	36.12	1518.21
83.2	20.5	36.53	1525.93	547.6	15.1	36.07	1517.17
88.9	20.6	36.52	1526.10	573.2	14.6	36.00	1515.78
92.7	20.6	36.55	1526.30	592.3	14.1	35.93	1514.45
98.5	20.6	36.56	1526.48	611.4	13.7	35.88	1513.27
90.8	20.6	36.57	1526.23	630.4	13.4	35.80	1512.53
108.1	20.4	36.54	1526.02	649.4	13.0	35.73	1511.33
128.3	19.6	36.53	1524.14	674.7	12.3	35.68	1509.57
148.4	19.2	36.53	1523.39	693.6	11.9	35.61	1508.38
168.4	19.0	36.52	1523.17	712.4	11.4	35.53	1506.92
188.4	18.9	36.51	1523.12	731.2	10.9	35.49	1505.37
208.4	18.7	36.51	1522.88	750.0	10.4	35.41	1503.69

LYNCH XBT 728

07/1100Z JUN 87

30° 48' 05" N

076° 11' 07" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.59	228.3	18.5	36.50	1522.66
7.8	25.0	36.26	1535.75	248.2	18.4	36.50	1522.52
13.6	25.0	36.27	1535.83	268.0	18.2	36.48	1522.39
19.4	24.9	36.27	1535.86	287.8	18.1	36.48	1522.39
23.3	24.5	36.35	1534.95	314.2	18.0	36.48	1522.40
27.1	24.1	36.38	1533.97	333.8	17.9	36.46	1522.38
33.0	23.3	36.43	1532.34	353.5	17.7	36.44	1522.27
38.8	22.6	36.50	1530.63	373.1	17.6	36.43	1522.15
42.6	22.4	36.55	1530.27	392.7	17.3	36.41	1521.78
48.5	22.1	36.57	1529.61	412.2	17.1	36.38	1521.46
54.2	21.6	36.53	1528.41	431.7	16.9	36.36	1521.12
58.1	21.3	36.54	1527.68	451.1	16.7	36.33	1520.55
61.9	21.1	36.54	1527.06	470.5	16.3	36.28	1519.72
67.7	20.9	36.56	1526.74	489.8	16.0	36.25	1519.01
73.5	20.7	36.54	1526.34	509.2	15.6	36.18	1518.12
77.4	20.5	36.53	1525.81	528.4	15.2	36.12	1516.99
83.2	20.5	36.53	1525.79	547.6	14.9	36.07	1516.30
88.9	20.6	36.52	1526.13	573.2	14.4	36.00	1515.06
92.7	20.6	36.55	1526.30	592.3	14.0	35.93	1513.97
98.5	20.5	36.56	1526.15	611.4	13.6	35.88	1512.89
90.8	20.5	36.57	1526.08	630.4	13.2	35.80	1511.97
108.1	20.2	36.54	1525.42	649.4	12.7	35.73	1510.57
128.3	19.5	36.53	1523.82	674.7	12.1	35.68	1508.74
148.4	19.1	36.53	1523.08	693.6	11.6	35.61	1507.31
168.4	18.9	36.52	1522.89	712.4	11.2	35.53	1505.93
188.4	18.8	36.51	1522.75	731.2	10.7	35.49	1504.62
208.4	18.6	36.51	1522.69	750.0	10.2	35.41	1502.87

LYNCH XBT 729

07/1130Z JUN 87

30° 48' 00" N

076° 11' 22" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.79	228.3	18.6	36.50	1522.92
7.8	25.1	36.26	1535.95	248.2	18.5	36.50	1522.81
13.6	25.0	36.27	1536.02	268.0	18.3	36.48	1522.68
19.4	25.0	36.27	1536.10	287.8	18.2	36.48	1522.66
23.3	25.0	36.35	1536.22	314.2	18.1	36.48	1522.90
27.1	24.7	36.38	1535.42	333.8	18.1	36.46	1522.96
33.0	24.1	36.43	1534.12	353.5	17.9	36.44	1522.81
38.8	23.3	36.50	1532.33	373.1	17.8	36.43	1522.71
42.6	22.7	36.55	1530.96	392.7	17.6	36.41	1522.54
48.5	22.5	36.57	1530.59	412.2	17.4	36.38	1522.14
54.2	22.1	36.53	1529.71	431.7	17.1	36.36	1521.70
58.1	21.7	36.54	1528.58	451.1	17.0	36.33	1521.45
61.9	21.4	36.54	1527.91	470.5	16.6	36.28	1520.64
67.7	21.1	36.56	1527.26	489.8	16.3	36.25	1519.87
73.5	20.8	36.54	1526.63	509.2	16.0	36.18	1519.24
77.4	20.8	36.53	1526.54	528.4	15.6	36.12	1518.30
83.2	20.5	36.53	1525.92	547.6	15.3	36.07	1517.61
88.9	20.6	36.52	1526.24	573.2	14.8	36.00	1516.48
92.7	20.6	36.55	1526.35	592.3	14.4	35.93	1515.42
98.5	20.6	36.56	1526.49	611.4	14.0	35.88	1514.15
90.8	20.6	36.57	1526.26	630.4	13.5	35.80	1512.99
108.1	20.3	36.54	1525.86	649.4	13.2	35.73	1512.06
128.3	19.6	36.53	1524.07	674.7	12.6	35.68	1510.33
148.4	19.2	36.53	1523.34	693.6	12.1	35.61	1509.03
168.4	19.0	36.52	1523.08	712.4	11.6	35.53	1507.41
188.4	18.9	36.51	1523.17	731.2	11.2	35.49	1506.21
208.4	18.7	36.51	1522.96	750.0	10.6	35.41	1504.35

LYNCH XBT 730

07/1200Z JUN 87

30° 48' 03" N

076° 11' 29" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.74	228.3	18.6	36.50	1522.92
7.8	25.1	36.26	1536.02	248.2	18.5	36.50	1522.86
13.6	25.1	36.27	1536.28	268.0	18.3	36.48	1522.71
19.4	25.3	36.27	1536.79	287.8	18.2	36.48	1522.75
23.3	25.2	36.35	1536.65	314.2	18.1	36.48	1522.79
27.1	24.6	36.38	1535.35	333.8	18.0	36.46	1522.73
33.0	23.8	36.43	1533.50	353.5	17.9	36.44	1522.68
38.8	23.0	36.50	1531.77	373.1	17.7	36.43	1522.59
42.6	22.8	36.55	1531.16	392.7	17.5	36.41	1522.18
48.5	22.4	36.57	1530.47	412.2	17.3	36.38	1521.81
54.2	22.0	36.53	1529.35	431.7	17.1	36.36	1521.55
58.1	21.5	36.54	1528.18	451.1	16.9	36.33	1521.27
61.9	21.3	36.54	1527.65	470.5	16.5	36.28	1520.25
67.7	21.1	36.56	1527.22	489.8	16.1	36.25	1519.53
73.5	20.9	36.54	1526.79	509.2	15.8	36.18	1518.83
77.4	20.8	36.53	1526.49	528.4	15.4	36.12	1517.81
83.2	20.6	36.53	1526.14	547.6	15.1	36.07	1517.05
88.9	20.7	36.52	1526.48	573.2	14.6	36.00	1515.78
92.7	20.7	36.55	1526.46	592.3	14.2	35.93	1514.84
98.5	20.6	36.56	1526.54	611.4	13.8	35.88	1513.51
90.8	20.6	36.57	1526.41	630.4	13.4	35.80	1512.56
108.1	20.3	36.54	1525.83	649.4	12.9	35.73	1511.03
128.3	19.6	36.53	1524.26	674.7	12.3	35.68	1509.28
148.4	19.3	36.53	1523.50	693.6	11.8	35.61	1508.00
168.4	19.1	36.52	1523.22	712.4	11.3	35.53	1506.45
188.4	19.0	36.51	1523.31	731.2	10.8	35.49	1504.91
208.4	18.8	36.51	1523.00	750.0	10.4	35.41	1503.78

LYNCH XBT 731

07/1230Z JUN 87

30° 48' 14" N

076° 11' 43" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.58	228.3	18.5	36.50	1522.58
7.8	25.0	36.26	1535.80	248.2	18.3	36.50	1522.43
13.6	25.0	36.27	1535.88	268.0	18.2	36.48	1522.42
19.4	25.0	36.27	1535.93	287.8	18.2	36.48	1522.56
23.3	25.0	36.35	1536.08	314.2	18.0	36.48	1522.59
27.1	24.5	36.38	1535.11	333.8	18.0	36.46	1522.67
33.0	24.0	36.43	1533.89	353.5	17.8	36.44	1522.48
38.8	23.2	36.50	1532.13	373.1	17.7	36.43	1522.45
42.6	22.6	36.55	1530.78	392.7	17.4	36.41	1522.02
48.5	22.3	36.57	1530.17	412.2	17.2	36.38	1521.63
54.2	22.0	36.53	1529.37	431.7	17.0	36.36	1521.46
58.1	21.4	36.54	1527.79	451.1	16.9	36.33	1521.21
61.9	21.2	36.54	1527.38	470.5	16.5	36.28	1520.31
67.7	21.0	36.56	1526.98	489.8	16.2	36.25	1519.56
73.5	20.8	36.54	1526.42	509.2	15.9	36.18	1518.91
77.4	20.7	36.53	1526.41	528.4	15.5	36.12	1517.96
83.2	20.5	36.53	1525.92	547.6	15.1	36.07	1517.16
88.9	20.6	36.52	1526.24	573.2	14.7	36.00	1516.15
92.7	20.5	36.55	1526.13	592.3	14.4	35.93	1515.22
98.5	20.5	36.56	1526.29	611.4	14.1	35.88	1514.55
90.8	20.5	36.57	1526.16	630.4	13.6	35.80	1513.12
108.1	20.2	36.54	1525.42	649.4	13.1	35.73	1511.91
128.3	19.5	36.53	1523.82	674.7	12.5	35.68	1510.08
148.4	19.1	36.53	1523.17	693.6	12.0	35.61	1508.55
168.4	18.9	36.52	1522.91	712.4	11.5	35.53	1507.18
188.4	18.8	36.51	1522.83	731.2	11.1	35.49	1506.03
208.4	18.6	36.51	1522.62	750.0	10.5	35.41	1504.24

LYNCH XBT 732

07/1300Z JUN 87

30° 48' 25" N

076° 11' 57" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	24.8	36.19	1535.10	228.3	18.4	36.50	1522.32
7.8	24.8	36.26	1535.32	248.2	18.3	36.50	1522.23
13.6	24.8	36.27	1535.42	268.0	18.1	36.48	1522.04
19.4	24.8	36.27	1535.48	287.8	18.0	36.48	1522.17
23.3	24.7	36.35	1535.34	314.2	17.9	36.48	1522.21
27.1	24.3	36.38	1534.46	333.8	17.8	36.46	1522.09
33.0	23.6	36.43	1532.96	353.5	17.7	36.44	1522.10
38.8	23.0	36.50	1531.67	373.1	17.6	36.43	1522.09
42.6	22.5	36.55	1530.50	392.7	17.3	36.41	1521.72
48.5	22.3	36.57	1530.10	412.2	17.1	36.38	1521.43
54.2	22.0	36.53	1529.37	431.7	17.0	36.36	1521.27
58.1	21.5	36.54	1528.03	451.1	16.8	36.33	1521.00
61.9	21.1	36.54	1527.19	470.5	16.5	36.28	1520.24
67.7	20.9	36.56	1526.69	489.8	16.1	36.25	1519.50
73.5	20.8	36.54	1526.44	509.2	15.8	36.18	1518.78
77.4	20.6	36.53	1526.14	528.4	15.5	36.12	1517.96
83.2	20.4	36.53	1525.64	547.6	15.1	36.07	1517.17
88.9	20.5	36.52	1525.88	573.2	14.7	36.00	1516.18
92.7	20.6	36.55	1526.38	592.3	14.3	35.93	1515.13
98.5	20.4	36.56	1526.02	611.4	13.8	35.88	1513.76
90.8	20.5	36.57	1525.95	630.4	13.4	35.80	1512.59
108.1	20.2	36.54	1525.42	649.4	13.1	35.73	1511.66
128.3	19.5	36.53	1523.74	674.7	12.5	35.68	1510.00
148.4	19.0	36.53	1522.89	693.6	12.0	35.61	1508.55
168.4	18.9	36.52	1522.73	712.4	11.5	35.53	1506.99
188.4	18.7	36.51	1522.55	731.2	11.1	35.49	1506.03
208.4	18.6	36.51	1522.45	750.0	10.6	35.41	1504.42

LYNCH XBT 733

07/1330Z JUN 87

30° 48' 36" N

076° 12' 11" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.95	228.3	18.6	36.50	1522.78
7.8	25.1	36.26	1536.06	248.2	18.4	36.50	1522.65
13.6	25.1	36.27	1536.11	268.0	18.3	36.48	1522.59
19.4	25.1	36.27	1536.20	287.8	18.2	36.48	1522.64
23.3	25.0	36.35	1536.18	314.2	18.0	36.48	1522.62
27.1	24.5	36.38	1535.11	333.8	17.9	36.46	1522.61
33.0	23.8	36.43	1533.42	353.5	17.8	36.44	1522.54
38.8	23.1	36.50	1531.90	373.1	17.7	36.43	1522.42
42.6	22.7	36.55	1531.11	392.7	17.5	36.41	1522.13
48.5	22.4	36.57	1530.50	412.2	17.3	36.38	1521.90
54.2	21.9	36.53	1529.24	431.7	17.1	36.36	1521.73
58.1	21.5	36.54	1528.03	451.1	16.9	36.33	1521.42
61.9	21.2	36.54	1527.43	470.5	16.6	36.28	1520.54
67.7	21.1	36.56	1527.30	489.8	16.3	36.25	1519.87
73.5	20.9	36.54	1526.77	509.2	15.9	36.18	1519.17
77.4	20.8	36.53	1526.65	528.4	15.6	36.12	1518.40
83.2	20.6	36.53	1526.23	547.6	15.3	36.07	1517.56
88.9	20.9	36.52	1527.02	573.2	14.9	36.00	1516.59
92.7	20.8	36.55	1526.78	592.3	14.5	35.93	1515.51
98.5	20.6	36.56	1526.50	611.4	13.9	35.88	1514.02
90.8	20.7	36.57	1526.57	630.4	13.6	35.80	1513.09
108.1	20.3	36.54	1525.69	649.4	13.2	35.73	1511.99
128.3	19.6	36.53	1524.06	674.7	12.6	35.68	1510.48
148.4	19.2	36.53	1523.28	693.6	12.0	35.61	1508.65
168.4	19.0	36.52	1523.17	712.4	11.5	35.53	1507.13
188.4	18.8	36.51	1522.95	731.2	11.1	35.49	1506.00
208.4	18.7	36.51	1522.88	750.0	10.6	35.41	1504.42

LYNCH XBT 735

07/1430Z JUN 87

30° 48' 58" N

076° 12' 39" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.85	228.3	18.7	36.50	1523.15
7.8	25.2	36.26	1536.25	248.2	18.6	36.50	1523.09
13.6	25.2	36.27	1536.38	268.0	18.5	36.48	1523.08
19.4	25.3	36.27	1536.69	287.8	18.3	36.48	1523.02
23.3	25.4	36.35	1537.05	314.2	18.2	36.48	1523.03
27.1	25.0	36.38	1536.24	333.8	18.1	36.46	1523.05
33.0	24.4	36.43	1534.90	353.5	18.0	36.44	1522.97
38.8	23.6	36.50	1533.05	373.1	17.8	36.43	1522.88
42.6	23.2	36.55	1532.32	392.7	17.6	36.41	1522.62
48.5	23.0	36.57	1531.89	412.2	17.4	36.38	1522.32
54.2	22.2	36.53	1530.02	431.7	17.3	36.36	1522.08
58.1	21.8	36.54	1528.87	451.1	17.0	36.33	1521.66
61.9	21.5	36.54	1528.23	470.5	16.8	36.28	1521.20
67.7	21.2	36.56	1527.57	489.8	16.5	36.25	1520.50
73.5	21.1	36.54	1527.22	509.2	16.1	36.18	1519.69
77.4	21.0	36.53	1527.02	528.4	15.8	36.12	1518.99
83.2	20.8	36.53	1526.70	547.6	15.5	36.07	1518.13
88.9	20.7	36.52	1526.37	573.2	14.9	36.00	1516.81
92.7	20.5	36.55	1526.08	592.3	14.6	35.93	1515.87
98.5	20.4	36.56	1525.85	611.4	14.2	35.88	1514.97
90.8	20.6	36.57	1526.29	630.4	13.8	35.80	1513.81
108.1	20.6	36.54	1526.53	649.4	13.2	35.73	1512.16
128.3	20.0	36.53	1525.37	674.7	12.6	35.68	1510.47
148.4	19.4	36.53	1523.90	693.6	12.1	35.61	1508.92
168.4	19.2	36.52	1523.66	712.4	11.7	35.53	1507.67
188.4	19.0	36.51	1523.45	731.2	11.2	35.49	1506.31
208.4	18.9	36.51	1523.33	750.0	10.7	35.41	1504.76

LYNCH XBT 736

07/1459Z JUN 87

30° 50' 59" N

076° 11' 52" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.4	36.19	1536.74	228.3	18.7	36.50	1523.09
7.8	25.2	36.26	1536.23	248.2	18.5	36.50	1523.01
13.6	25.2	36.27	1536.29	268.0	18.4	36.48	1522.79
19.4	25.1	36.27	1536.34	287.8	18.3	36.48	1522.82
23.3	25.1	36.35	1536.49	314.2	18.1	36.48	1522.91
27.1	25.1	36.38	1536.57	333.8	18.1	36.46	1523.02
33.0	24.8	36.43	1535.96	353.5	17.9	36.44	1522.74
38.8	23.7	36.50	1533.32	373.1	17.9	36.43	1522.97
42.6	23.1	36.55	1532.12	392.7	17.7	36.41	1522.74
48.5	22.7	36.57	1531.18	412.2	17.5	36.38	1522.61
54.2	22.4	36.53	1530.54	431.7	17.3	36.36	1522.29
58.1	21.8	36.54	1529.05	451.1	17.1	36.33	1521.90
61.9	21.6	36.54	1528.57	470.5	16.8	36.28	1521.19
67.7	21.3	36.56	1527.89	489.8	16.6	36.25	1520.81
73.5	21.1	36.54	1527.41	509.2	16.2	36.18	1520.01
77.4	20.9	36.53	1526.84	528.4	15.8	36.12	1518.99
83.2	20.8	36.53	1526.57	547.6	15.5	36.07	1518.36
88.9	20.5	36.52	1526.07	573.2	15.0	36.00	1516.88
92.7	20.4	36.55	1525.89	592.3	14.6	35.93	1515.87
98.5	20.3	36.56	1525.68	611.4	14.3	35.88	1515.15
90.8	20.5	36.57	1526.10	630.4	14.0	35.80	1514.56
108.1	20.2	36.54	1525.34	649.4	13.4	35.73	1512.85
128.3	20.0	36.53	1525.15	674.7	12.9	35.68	1511.34
148.4	19.6	36.53	1524.45	693.6	12.4	35.61	1510.11
168.4	19.2	36.52	1523.76	712.4	12.0	35.53	1508.85
188.4	18.9	36.51	1523.23	731.2	11.7	35.49	1508.05
208.4	18.8	36.51	1523.25	750.0	11.3	35.41	1506.78

LYNCH XBT 737

07/1512Z JUN 87

30° 51' 46" N

076° 11' 35" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	27.2	36.19	1540.73	228.3	18.9	36.50	1523.66
7.8	27.2	36.26	1540.86	248.2	18.7	36.50	1523.45
13.6	27.2	36.27	1540.99	268.0	18.5	36.48	1523.34
19.4	27.2	36.27	1541.02	287.8	18.4	36.48	1523.34
21.3	27.0	36.35	1540.80	314.2	18.2	36.48	1523.17
27.8	25.7	36.38	1537.97	333.8	18.1	36.46	1523.19
33.0	25.1	36.43	1536.70	353.5	18.0	36.44	1523.00
38.8	25.1	36.50	1536.86	373.1	17.9	36.43	1523.18
42.6	25.1	36.55	1536.93	392.7	17.8	36.41	1523.23
48.5	25.1	36.57	1537.03	412.2	17.8	36.38	1523.25
54.2	25.1	36.53	1537.03	431.7	17.5	36.36	1522.91
58.1	24.7	36.54	1536.28	451.1	17.4	36.33	1522.67
61.9	24.4	36.54	1535.60	470.5	17.1	36.28	1522.20
67.7	23.9	36.56	1534.45	489.8	17.0	36.25	1522.19
73.5	23.1	36.54	1532.58	509.2	16.7	36.18	1521.45
77.4	22.6	36.53	1531.23	528.4	16.4	36.12	1520.82
83.2	22.0	36.53	1529.74	547.6	16.1	36.07	1520.17
88.9	21.5	36.52	1528.50	573.2	15.6	36.00	1518.96
92.7	21.2	36.55	1527.93	592.3	15.2	35.93	1517.73
98.5	21.0	36.56	1527.50	611.4	14.8	35.88	1516.80
90.8	21.4	36.57	1528.52	630.4	14.4	35.80	1515.69
108.1	20.8	36.54	1526.97	649.4	14.0	35.73	1514.88
128.3	20.3	36.53	1525.94	674.7	13.5	35.68	1513.48
148.4	19.8	36.53	1524.98	693.6	13.2	35.61	1512.53
168.4	19.8	36.52	1525.18	712.4	12.7	35.53	1511.09
188.4	19.3	36.51	1524.30	731.2	12.3	35.49	1510.27
208.4	19.1	36.51	1524.02	750.0	11.9	35.41	1508.98

LYNCH XBT 738

07/1532Z JUN 87

30° 53' 19" N

076° 10' 58" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.0	36.19	1535.74	235.0	18.6	36.50	1523.11
7.8	25.1	36.26	1536.16	254.8	18.5	36.50	1523.03
13.6	25.1	36.27	1536.20	274.6	18.3	36.48	1522.75
19.4	25.1	36.27	1536.20	294.4	18.1	36.48	1522.44
23.3	25.0	36.35	1536.22	314.2	18.0	36.48	1522.65
27.1	25.0	36.38	1536.26	333.8	17.9	36.46	1522.61
33.0	24.8	36.43	1535.84	353.5	17.8	36.44	1522.46
38.8	24.4	36.50	1535.09	373.1	17.7	36.43	1522.59
42.6	24.1	36.55	1534.48	392.7	17.6	36.41	1522.41
48.5	23.0	36.57	1531.95	412.2	17.4	36.38	1522.26
54.2	22.3	36.53	1530.18	431.7	17.1	36.36	1521.70
58.1	22.0	36.54	1529.52	457.6	16.9	36.33	1521.42
61.9	21.6	36.54	1528.46	476.9	16.6	36.28	1520.61
67.7	21.2	36.56	1527.63	496.3	16.3	36.25	1520.05
73.5	21.0	36.54	1527.03	515.6	16.0	36.18	1519.53
77.4	20.9	36.53	1526.94	534.8	15.7	36.12	1518.62
83.2	20.8	36.53	1526.56	554.0	15.3	36.07	1517.60
88.9	20.6	36.52	1526.18	573.2	14.8	36.00	1516.55
92.7	20.5	36.55	1526.03	598.7	14.3	35.93	1515.05
98.5	20.5	36.56	1526.14	617.7	13.9	35.88	1513.92
92.7	20.6	36.57	1526.21	636.8	13.5	35.80	1512.83
114.8	20.0	36.54	1525.08	655.7	13.1	35.73	1511.73
135.0	19.7	36.53	1524.64	674.7	12.6	35.68	1510.45
155.1	19.5	36.53	1524.28	693.6	12.2	35.61	1509.40
175.1	19.3	36.52	1524.06	712.4	11.7	35.53	1507.79
195.1	19.1	36.51	1523.65	737.5	11.1	35.49	1505.99
215.0	18.8	36.51	1523.14	756.2	10.7	35.41	1504.86

LYNCH XBT '739

07/1600Z JUN 87

30° 55' 28" N

076° 10' 01" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.83	228.3	18.6	36.50	1522.92
7.8	25.1	36.26	1536.14	248.2	18.5	36.50	1522.89
13.6	25.1	36.27	1536.17	268.0	18.4	36.48	1522.82
19.4	25.1	36.27	1536.15	287.8	18.2	36.48	1522.75
23.3	25.0	36.35	1536.25	314.2	18.1	36.48	1522.85
27.1	25.0	36.38	1536.29	333.8	18.0	36.46	1522.73
33.0	24.9	36.43	1536.24	353.5	17.8	36.44	1522.48
38.8	24.6	36.50	1535.67	373.1	17.6	36.43	1522.24
42.6	24.5	36.55	1535.45	392.7	17.5	36.41	1522.09
48.5	23.7	36.57	1533.56	412.2	17.4	36.38	1522.08
54.2	23.0	36.53	1531.93	431.7	17.0	36.36	1521.27
58.1	22.4	36.54	1530.40	451.1	16.8	36.33	1521.12
61.9	21.9	36.54	1529.30	470.5	16.8	36.28	1521.11
67.7	21.6	36.56	1528.61	489.8	16.4	36.25	1520.29
73.5	21.4	36.54	1528.20	509.2	16.1	36.18	1519.77
77.4	21.2	36.53	1527.56	528.4	15.8	36.12	1518.80
83.2	20.9	36.53	1526.84	547.6	15.3	36.07	1517.64
88.9	20.7	36.52	1526.40	573.2	14.9	36.00	1516.59
92.7	20.5	36.55	1526.13	592.3	14.4	35.93	1515.42
98.5	20.5	36.56	1526.10	611.4	14.0	35.88	1514.33
90.8	20.6	36.57	1526.43	630.4	13.6	35.80	1513.28
108.1	20.3	36.54	1525.69	649.4	13.1	35.73	1511.91
128.3	19.8	36.53	1524.72	674.7	12.5	35.68	1510.23
148.4	19.4	36.53	1524.01	693.6	12.0	35.61	1508.72
168.4	19.2	36.52	1523.62	712.4	11.6	35.53	1507.61
188.4	19.1	36.51	1523.62	731.2	11.2	35.49	1506.21
208.4	18.8	36.51	1523.13	750.0	10.7	35.41	1504.83

LYNCH XBT 740

07/1700Z JUN 87

30° 58' 10" N

076° 08' 14" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.14	228.3	18.7	36.50	1523.06
7.8	25.2	36.26	1536.28	248.2	18.6	36.50	1523.08
13.6	25.2	36.27	1536.29	268.0	18.4	36.48	1522.97
19.4	25.1	36.27	1536.22	287.8	18.3	36.48	1522.91
23.3	25.1	36.35	1536.37	314.2	18.1	36.48	1522.91
27.1	25.1	36.38	1536.43	333.8	18.0	36.46	1522.93
33.0	24.7	36.43	1535.59	353.5	17.9	36.44	1522.81
38.8	24.5	36.50	1535.45	373.1	17.6	36.43	1522.27
42.6	24.3	36.55	1535.01	392.7	17.4	36.41	1522.00
48.5	23.5	36.57	1533.11	412.2	17.3	36.38	1521.84
54.2	22.8	36.53	1531.48	431.7	17.0	36.36	1521.46
58.1	22.4	36.54	1530.58	451.1	16.8	36.33	1521.12
61.9	21.8	36.54	1529.04	470.5	16.5	36.28	1520.42
67.7	21.6	36.56	1528.48	489.8	16.2	36.25	1519.68
73.5	21.3	36.54	1527.86	509.2	15.8	36.18	1518.81
77.4	21.0	36.53	1527.16	528.4	15.6	36.12	1518.21
83.2	20.7	36.53	1526.53	547.6	15.2	36.07	1517.30
88.9	20.5	36.52	1525.94	573.2	14.7	36.00	1515.96
92.7	20.4	36.55	1525.86	592.3	14.3	35.93	1514.97
98.5	20.3	36.56	1525.62	611.4	13.9	35.88	1514.00
90.8	20.5	36.57	1526.04	630.4	13.5	35.80	1512.83
108.1	20.1	36.54	1525.09	649.4	13.0	35.73	1511.43
128.3	19.7	36.53	1524.46	674.7	12.3	35.68	1509.59
148.4	19.4	36.53	1523.90	693.6	11.9	35.61	1508.41
168.4	19.1	36.52	1523.46	712.4	11.4	35.53	1506.71
188.4	18.9	36.51	1523.23	731.2	11.0	35.49	1505.58
208.4	18.8	36.51	1523.17	750.0	10.5	35.41	1504.06

LYNCH XBT 742

07/1810Z JUN 87

30° 56' 31" N

076° 10' 08" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.4	36.19	1536.71	228.3	18.7	36.50	1523.20
7.8	25.2	36.26	1536.33	248.2	18.6	36.50	1523.09
13.6	25.2	36.27	1536.30	268.0	18.4	36.48	1522.91
19.4	25.1	36.27	1536.29	287.8	18.3	36.48	1522.89
23.3	25.1	36.35	1536.44	314.2	18.1	36.48	1522.92
27.1	25.1	36.38	1536.48	333.8	18.0	36.46	1522.87
33.0	24.9	36.43	1536.26	353.5	17.9	36.44	1522.87
38.8	24.7	36.50	1535.76	373.1	17.8	36.43	1522.83
42.6	24.5	36.55	1535.40	392.7	17.6	36.41	1522.62
48.5	23.8	36.57	1533.92	412.2	17.5	36.38	1522.43
54.2	23.3	36.53	1532.76	431.7	17.3	36.36	1522.19
58.1	22.9	36.54	1531.77	451.1	17.0	36.33	1521.72
61.9	22.6	36.54	1531.08	470.5	16.8	36.28	1521.29
67.7	21.8	36.56	1529.06	489.8	16.6	36.25	1520.78
73.5	21.3	36.54	1527.91	509.2	16.4	36.18	1520.56
77.4	21.2	36.53	1527.58	528.4	16.1	36.12	1519.97
83.2	20.9	36.53	1527.03	547.6	15.8	36.07	1519.17
88.9	20.6	36.52	1526.26	573.2	15.3	36.00	1518.09
92.7	20.5	36.55	1526.11	592.3	15.0	35.93	1517.23
98.5	20.4	36.56	1525.99	611.4	14.6	35.88	1516.27
90.8	20.6	36.57	1526.43	630.4	14.2	35.80	1515.04
108.1	20.1	36.54	1525.20	649.4	13.8	35.73	1514.02
128.3	19.8	36.53	1524.72	674.7	13.2	35.68	1512.56
148.4	19.5	36.53	1524.23	693.6	12.8	35.61	1511.33
168.4	19.2	36.52	1523.59	712.4	12.4	35.53	1510.08
188.4	19.0	36.51	1523.43	731.2	12.0	35.49	1509.01
208.4	18.9	36.51	1523.37	750.0	11.5	35.41	1507.75

LYNCH XBT 743

07/1900Z JUN 87

30° 58' 47" N

076° 08' 09" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.95	228.3	18.7	36.50	1523.03
7.8	25.2	36.26	1536.23	248.2	18.5	36.50	1522.79
13.6	25.1	36.27	1536.07	268.0	18.3	36.48	1522.76
19.4	25.0	36.27	1536.03	287.8	18.2	36.48	1522.79
23.3	25.0	36.35	1536.15	314.2	18.1	36.48	1522.72
27.1	25.0	36.38	1536.21	333.8	17.9	36.46	1522.58
33.0	24.8	36.43	1535.92	353.5	17.8	36.44	1522.49
38.8	24.5	36.50	1535.35	373.1	17.7	36.43	1522.45
42.6	24.2	36.55	1534.65	392.7	17.5	36.41	1522.18
48.5	23.6	36.57	1533.43	412.2	17.3	36.38	1521.84
54.2	23.0	36.53	1531.91	431.7	17.0	36.36	1521.46
58.1	22.6	36.54	1530.93	451.1	16.8	36.33	1521.09
61.9	22.2	36.54	1530.00	470.5	16.6	36.28	1520.58
67.7	21.8	36.56	1529.19	489.8	16.3	36.25	1519.87
73.5	21.3	36.54	1527.86	509.2	16.0	36.18	1519.28
77.4	21.1	36.53	1527.45	528.4	15.5	36.12	1518.12
83.2	20.8	36.53	1526.68	547.6	15.3	36.07	1517.77
88.9	20.6	36.52	1526.18	573.2	14.8	36.00	1516.34
92.7	20.4	36.55	1525.67	592.3	14.5	35.93	1515.55
98.5	20.2	36.56	1525.46	611.4	14.1	35.88	1514.70
90.8	20.5	36.57	1526.05	630.4	13.8	35.80	1514.00
108.1	20.0	36.54	1524.82	649.4	13.3	35.73	1512.54
128.3	19.7	36.53	1524.28	674.7	12.7	35.68	1510.64
148.4	19.3	36.53	1523.73	693.6	12.2	35.61	1509.40
168.4	19.1	36.52	1523.32	712.4	11.8	35.53	1508.13
188.4	18.9	36.51	1523.09	731.2	11.5	35.49	1507.43
208.4	18.8	36.51	1523.06	750.0	11.0	35.41	1505.83

LYNCH XBT 744

07/2025Z JUN 87

31° 01' 24" N

076° 05' 41" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.3	36.19	1536.31	228.3	18.6	36.50	1522.98
7.8	25.1	36.26	1536.16	248.2	18.5	36.50	1522.99
13.6	25.1	36.27	1536.11	268.0	18.4	36.48	1522.99
19.4	25.0	36.27	1536.05	287.8	18.3	36.48	1523.05
23.3	25.0	36.35	1536.18	314.2	18.2	36.48	1523.10
27.1	25.0	36.38	1536.24	333.8	18.1	36.46	1522.99
33.0	24.5	36.43	1535.16	353.5	17.9	36.44	1522.92
38.8	23.7	36.50	1533.30	373.1	17.8	36.43	1522.71
42.6	23.4	36.55	1532.82	392.7	17.5	36.41	1522.30
48.5	23.1	36.57	1532.05	412.2	17.4	36.38	1522.29
54.2	22.8	36.53	1531.45	431.7	17.3	36.36	1522.16
58.1	22.5	36.54	1530.65	451.1	17.2	36.33	1522.11
61.9	22.1	36.54	1529.66	470.5	16.9	36.28	1521.67
67.7	21.7	36.56	1528.85	489.8	16.6	36.25	1520.81
73.5	21.5	36.54	1528.28	509.2	16.3	36.18	1520.19
77.4	21.3	36.53	1527.82	528.4	16.0	36.12	1519.45
83.2	21.0	36.53	1527.17	547.6	15.6	36.07	1518.61
88.9	20.8	36.52	1526.67	573.2	15.2	36.00	1517.68
92.7	20.6	36.55	1526.27	592.3	14.8	35.93	1516.57
98.5	20.4	36.56	1525.88	611.4	14.4	35.88	1515.58
90.8	20.7	36.57	1526.54	630.4	14.0	35.80	1514.39
108.1	20.1	36.54	1525.20	649.4	13.7	35.73	1513.74
128.3	19.7	36.53	1524.43	674.7	13.4	35.68	1513.00
148.4	19.4	36.53	1523.87	693.6	12.9	35.61	1511.76
168.4	19.2	36.52	1523.51	712.4	12.5	35.53	1510.42
188.4	18.9	36.51	1523.20	731.2	12.1	35.49	1509.32
208.4	18.8	36.51	1523.15	750.0	11.7	35.41	1508.30

LYNCH XBT 745

07/2100Z JUN 87

31° 00' 29" N

076° 06' 22" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.21	228.3	18.6	36.50	1522.80
7.8	25.2	36.26	1536.21	248.2	18.5	36.50	1522.85
13.6	25.1	36.27	1536.19	268.0	18.3	36.48	1522.76
19.4	25.1	36.27	1536.17	287.8	18.2	36.48	1522.59
23.3	25.0	36.35	1536.18	314.2	18.0	36.48	1522.62
27.1	25.0	36.38	1536.19	333.8	17.9	36.46	1522.52
33.0	24.1	36.43	1534.29	353.5	17.6	36.44	1522.07
38.8	23.7	36.50	1533.32	373.1	17.4	36.43	1521.74
42.6	23.4	36.55	1532.82	392.7	17.4	36.41	1521.93
48.5	23.1	36.57	1532.08	412.2	17.2	36.38	1521.66
54.2	22.5	36.53	1530.56	431.7	17.0	36.36	1521.30
58.1	21.9	36.54	1529.31	451.1	16.7	36.33	1520.67
61.9	21.6	36.54	1528.59	470.5	16.4	36.28	1520.14
67.7	21.3	36.56	1527.82	489.8	16.2	36.25	1519.56
73.5	21.0	36.54	1527.19	509.2	15.8	36.18	1518.66
77.4	20.9	36.53	1526.76	528.4	15.4	36.12	1517.74
83.2	20.6	36.53	1526.22	547.6	15.1	36.07	1517.08
88.9	20.4	36.52	1525.67	573.2	14.6	36.00	1515.64
92.7	20.3	36.55	1525.37	592.3	14.1	35.93	1514.42
98.5	20.1	36.56	1525.14	611.4	13.8	35.88	1513.68
90.8	20.4	36.57	1525.66	630.4	13.5	35.80	1512.76
108.1	19.9	36.54	1524.68	649.4	13.1	35.73	1511.69
128.3	19.5	36.53	1523.87	674.7	12.4	35.68	1509.81
148.4	19.2	36.53	1523.45	693.6	11.9	35.61	1508.45
168.4	19.0	36.52	1523.11	712.4	11.7	35.53	1507.79
188.4	18.8	36.51	1522.86	731.2	11.3	35.49	1506.70
208.4	18.7	36.51	1522.79	750.0	10.8	35.41	1504.99

LYNCH XBT 746

07/2200Z JUN 87

30° 58' 52" N

076° 07' 29" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.4	36.19	1536.73	248.2	18.5	36.50	1522.87
7.8	25.3	36.26	1536.61	268.0	18.3	36.50	1522.78
13.6	25.2	36.27	1536.52	287.8	18.2	36.48	1522.65
19.4	25.1	36.27	1536.29	314.2	18.0	36.48	1522.49
23.3	25.1	36.35	1536.32	333.8	17.9	36.48	1522.49
27.1	25.0	36.38	1536.21	353.5	17.7	36.46	1522.31
33.0	24.9	36.43	1536.17	373.1	17.7	36.44	1522.52
38.8	24.1	36.50	1534.38	392.7	17.5	36.43	1522.38
42.6	23.8	36.55	1533.89	412.2	17.4	36.41	1522.23
48.5	23.4	36.57	1532.87	431.7	17.1	36.38	1521.69
54.2	23.2	36.53	1532.41	451.1	16.9	36.36	1521.34
58.1	22.8	36.54	1531.49	470.5	16.7	36.33	1520.95
61.9	22.3	36.54	1530.28	489.8	16.5	36.28	1520.58
67.7	21.8	36.56	1529.06	509.2	16.3	36.25	1520.21
73.5	21.4	36.54	1528.02	528.4	15.9	36.18	1519.46
77.4	21.1	36.53	1527.42	547.6	15.6	36.12	1518.71
83.2	20.8	36.53	1526.66	573.2	15.1	36.07	1517.49
88.9	20.6	36.52	1526.32	592.3	14.7	36.00	1516.52
92.7	20.4	36.55	1525.75	611.4	14.4	35.93	1515.55
96.6	20.3	36.56	1525.59	630.4	13.9	35.88	1514.36
128.3	19.7	36.54	1524.30	649.4	13.6	35.80	1513.39
148.4	19.4	36.53	1523.79	674.7	13.0	35.73	1511.87
168.4	19.1	36.53	1523.39	693.6	12.6	35.68	1510.67
188.4	18.9	36.52	1523.04	712.4	12.1	35.61	1509.28
208.4	18.8	36.51	1523.02	731.2	11.7	35.53	1508.26
228.3	18.6	36.51	1522.90	750.0	11.2	35.49	1506.81

LYNCH XBT 747

07/2300Z JUN 87

30° 57' 14" N

076° 08' 46" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.5	36.19	1536.77	228.3	18.7	36.50	1523.12
7.8	25.4	36.26	1536.84	248.2	18.6	36.50	1523.08
13.6	25.4	36.27	1536.93	268.0	18.4	36.48	1522.99
19.4	25.5	36.27	1537.12	287.8	18.3	36.48	1522.98
23.3	25.3	36.35	1536.94	314.2	18.1	36.48	1522.79
27.1	25.2	36.38	1536.76	333.8	18.0	36.46	1522.78
33.0	24.8	36.43	1536.05	353.5	17.8	36.44	1522.38
38.8	24.2	36.50	1534.53	373.1	17.6	36.43	1522.24
42.6	23.8	36.55	1533.69	392.7	17.4	36.41	1522.07
48.5	23.4	36.57	1532.93	412.2	17.3	36.38	1521.87
54.2	22.9	36.53	1531.66	431.7	17.1	36.36	1521.64
58.1	22.5	36.54	1530.63	451.1	16.8	36.33	1521.12
61.9	22.1	36.54	1529.90	470.5	16.6	36.28	1520.63
67.7	21.8	36.56	1529.00	489.8	16.3	36.25	1520.05
73.5	21.4	36.54	1528.12	509.2	16.0	36.18	1519.37
77.4	21.3	36.53	1527.82	528.4	15.6	36.12	1518.18
83.2	21.0	36.53	1527.17	547.6	15.2	36.07	1517.27
88.9	20.9	36.52	1526.99	573.2	14.7	36.00	1515.94
92.7	20.6	36.55	1526.35	592.3	14.2	35.93	1514.84
98.5	20.5	36.56	1526.07	611.4	14.0	35.88	1514.20
90.8	20.7	36.57	1526.67	630.4	13.6	35.80	1513.22
108.1	20.1	36.54	1525.20	649.4	13.0	35.73	1511.49
128.3	19.7	36.53	1524.51	674.7	12.5	35.68	1510.00
148.4	19.4	36.53	1523.95	693.6	12.0	35.61	1508.65
168.4	19.2	36.52	1523.63	712.4	11.5	35.53	1507.20
188.4	19.0	36.51	1523.45	731.2	11.1	35.49	1505.96
208.4	18.9	36.51	1523.30	750.0	10.5	35.41	1504.24

LYNCH XBT 748

08/0000Z JUN 87

30° 55' 41" N

076° 09' 52" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.4	36.19	1536.60	228.3	18.7	36.50	1523.18
7.8	25.4	36.26	1536.66	248.2	18.5	36.50	1523.05
13.6	25.2	36.27	1536.52	268.0	18.4	36.48	1522.88
19.4	25.2	36.27	1536.43	287.8	18.3	36.48	1522.94
23.3	25.1	36.35	1536.34	314.2	18.1	36.48	1522.94
27.1	25.1	36.38	1536.38	333.8	18.0	36.46	1522.90
33.0	24.8	36.43	1535.83	353.5	17.9	36.44	1522.78
38.8	24.2	36.50	1534.72	373.1	17.8	36.43	1522.71
42.6	24.0	36.55	1534.21	392.7	17.6	36.41	1522.62
48.5	23.5	36.57	1533.26	412.2	17.5	36.38	1522.43
54.2	23.1	36.53	1532.21	431.7	17.3	36.36	1522.10
58.1	22.7	36.54	1531.37	451.1	17.0	36.33	1521.66
61.9	22.3	36.54	1530.31	470.5	16.8	36.28	1521.11
67.7	21.9	36.56	1529.33	489.8	16.4	36.25	1520.41
73.5	21.4	36.54	1528.23	509.2	16.2	36.18	1520.09
77.4	21.3	36.53	1528.01	528.4	16.0	36.12	1519.54
83.2	21.1	36.53	1527.36	547.6	15.6	36.07	1518.58
88.9	20.9	36.52	1526.91	573.2	15.2	36.00	1517.52
92.7	20.8	36.55	1526.86	592.3	14.7	35.93	1516.44
98.5	20.5	36.56	1526.18	611.4	14.3	35.88	1515.31
90.8	20.8	36.57	1526.84	630.4	14.0	35.80	1514.56
108.1	20.3	36.54	1525.64	649.4	13.6	35.73	1513.54
128.3	19.8	36.53	1524.62	674.7	13.1	35.68	1512.11
148.4	19.4	36.53	1523.92	693.6	12.6	35.61	1510.62
168.4	19.2	36.52	1523.65	712.4	12.1	35.53	1509.21
188.4	19.0	36.51	1523.40	731.2	11.6	35.49	1507.63
208.4	18.8	36.51	1523.17	750.0	11.1	35.41	1506.31

LYNCH XBT 750

08/0100Z JUN 87

30° 56' 05" N

076° 09' 40" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3	25.3	36.19	1536.43	248	18.5	36.50	1522.98
8	25.3	36.26	1536.56	268	18.4	36.50	1522.89
14	25.3	36.27	1536.61	288	18.3	36.48	1522.91
19	25.1	36.27	1536.34	308	18.2	36.48	1522.91
23	25.1	36.35	1536.44	327	18.0	36.48	1522.85
27	25.0	36.38	1536.36	347	17.9	36.46	1522.62
33	24.3	36.43	1534.82	367	17.7	36.44	1522.43
39	23.8	36.50	1533.74	386	17.5	36.43	1522.16
43	23.6	36.55	1533.34	406	17.4	36.41	1522.00
48	23.4	36.57	1532.90	425	17.2	36.38	1521.87
54	22.9	36.53	1531.76	445	16.9	36.36	1521.13
58	22.8	36.54	1531.60	470	16.5	36.33	1520.42
62	22.4	36.54	1530.64	490	16.3	36.28	1519.94
68	22.0	36.56	1529.76	509	15.9	36.25	1519.15
74	21.6	36.54	1528.60	528	15.5	36.18	1518.10
77	21.4	36.53	1528.06	548	15.2	36.12	1517.29
83	21.1	36.53	1527.52	567	14.7	36.07	1516.14
89	20.9	36.52	1526.96	586	14.3	36.00	1515.07
93	20.8	36.55	1526.89	605	13.9	35.93	1514.04
99	20.5	36.56	1526.20	624	13.5	35.88	1512.88
104	20.4	36.57	1525.89	649	12.8	35.80	1510.92
128	19.7	36.54	1524.52	668	12.3	35.73	1509.34
148	19.4	36.53	1523.85	687	11.7	35.68	1507.76
168	19.1	36.53	1523.50	706	11.3	35.61	1506.29
188	18.9	36.52	1523.24	725	10.9	35.53	1505.13
208	18.8	36.51	1523.04	750	10.2	35.49	1502.98
228	18.7	36.51	1523.10				

LYNCH XBT 751

08/0200Z JUN 87

30° 59' 07" N

076° 06' 31" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	24.9	36.19	1535.51	228.3	18.6	36.50	1522.83
7.8	24.9	36.26	1535.49	248.2	18.5	36.50	1522.83
13.6	24.9	36.27	1535.61	268.0	18.3	36.48	1522.71
19.4	24.9	36.27	1535.72	287.8	18.2	36.48	1522.71
23.3	24.8	36.35	1535.75	314.2	18.0	36.48	1522.65
27.1	24.8	36.38	1535.66	333.8	17.9	36.46	1522.61
33.0	24.7	36.43	1535.72	353.5	17.9	36.44	1522.70
38.8	24.5	36.50	1535.35	373.1	17.7	36.43	1522.59
42.6	24.0	36.55	1534.30	392.7	17.5	36.41	1522.21
48.5	23.3	36.57	1532.57	412.2	17.4	36.38	1522.20
54.2	22.8	36.53	1531.38	431.7	17.3	36.36	1522.35
58.1	22.6	36.54	1531.09	451.1	17.2	36.33	1522.11
61.9	22.5	36.54	1530.77	470.5	17.0	36.28	1521.77
67.7	22.0	36.56	1529.62	489.8	16.6	36.25	1521.05
73.5	21.5	36.54	1528.31	509.2	16.4	36.18	1520.66
77.4	21.3	36.53	1528.03	528.4	16.2	36.12	1520.15
83.2	21.1	36.53	1527.60	547.6	15.8	36.07	1519.06
88.9	20.8	36.52	1526.69	573.2	15.3	36.00	1518.12
92.7	20.5	36.55	1526.11	592.3	14.9	35.93	1516.98
98.5	20.4	36.56	1525.84	611.4	14.6	35.88	1516.11
90.8	20.7	36.57	1526.64	630.4	14.2	35.80	1515.14
108.1	20.1	36.54	1525.09	649.4	13.7	35.73	1513.89
128.3	19.7	36.53	1524.32	674.7	13.2	35.68	1512.31
148.4	19.4	36.53	1523.84	693.6	12.8	35.61	1511.19
168.4	19.1	36.52	1523.30	712.4	12.2	35.53	1509.54
188.4	18.9	36.51	1522.97	731.2	11.9	35.49	1508.84
208.4	18.7	36.51	1522.89	750.0	11.4	35.41	1507.37

LYNCH XBT 752

08/0405Z JUN 87

31° 06' 31" N

076° 04' 34" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.1	36.19	1535.81	228.3	18.6	36.50	1522.98
7.8	25.1	36.26	1536.06	248.2	18.5	36.50	1522.81
13.6	25.1	36.27	1536.15	268.0	18.4	36.48	1522.82
19.4	25.1	36.27	1536.24	287.8	18.3	36.48	1522.91
23.3	25.1	36.35	1536.32	314.2	18.1	36.48	1522.91
27.1	25.0	36.38	1536.29	333.8	18.0	36.46	1522.76
33.0	24.4	36.43	1534.85	353.5	17.9	36.44	1522.84
38.8	23.4	36.50	1532.75	373.1	17.8	36.43	1522.77
42.6	22.9	36.55	1531.59	392.7	17.6	36.41	1522.62
48.5	22.6	36.57	1530.85	412.2	17.5	36.38	1522.37
54.2	22.4	36.53	1530.41	431.7	17.3	36.36	1522.10
58.1	22.3	36.54	1530.11	451.1	17.0	36.33	1521.72
61.9	22.0	36.54	1529.59	470.5	16.8	36.28	1521.26
67.7	21.8	36.56	1529.23	489.8	16.4	36.25	1520.44
73.5	21.7	36.54	1528.89	509.2	16.0	36.18	1519.29
77.4	21.3	36.53	1527.98	528.4	15.7	36.12	1518.74
83.2	21.0	36.53	1527.24	547.6	15.4	36.07	1517.83
88.9	20.8	36.52	1526.67	573.2	14.7	36.00	1515.94
92.7	20.6	36.55	1526.43	592.3	14.1	35.93	1514.35
98.5	20.5	36.56	1526.18	611.4	13.9	35.88	1513.94
90.8	20.7	36.57	1526.68	630.4	13.3	35.80	1512.23
108.1	20.3	36.54	1525.80	649.4	12.7	35.73	1510.37
128.3	19.7	36.53	1524.51	674.7	12.2	35.68	1509.13
148.4	19.4	36.53	1523.95	693.6	11.8	35.61	1507.90
168.4	19.1	36.52	1523.39	712.4	11.4	35.53	1506.66
188.4	18.9	36.51	1523.14	731.2	10.8	35.49	1505.05
208.4	18.8	36.51	1523.00	750.0	10.4	35.41	1503.74

LYNCH XBT 754

08/1603Z JUN 87

30° 59' 12" N

076° 04' 18" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
2.9	25.2	36.19	1536.21	228.3	18.4	36.50	1522.23
7.8	25.2	36.26	1536.25	248.2	18.3	36.50	1522.32
13.6	24.9	36.27	1535.72	268.0	18.2	36.48	1522.24
19.4	24.9	36.27	1535.79	287.8	18.1	36.48	1522.40
23.3	24.9	36.35	1535.91	314.2	18.0	36.48	1522.46
27.1	24.9	36.38	1535.95	333.8	17.9	36.46	1522.41
33.0	24.1	36.43	1534.24	353.5	17.7	36.44	1522.30
38.8	23.3	36.50	1532.40	373.1	17.6	36.43	1522.15
42.6	22.8	36.55	1531.24	392.7	17.3	36.41	1521.75
48.5	22.2	36.57	1529.99	412.2	17.1	36.38	1521.25
54.2	22.1	36.53	1529.53	431.7	16.8	36.36	1520.80
58.1	21.6	36.54	1528.32	451.1	16.7	36.33	1520.55
61.9	21.3	36.54	1527.70	470.5	16.4	36.28	1520.13
67.7	21.0	36.56	1526.99	489.8	16.2	36.25	1519.68
73.5	20.7	36.54	1526.25	509.2	15.9	36.18	1519.14
77.4	20.6	36.53	1526.08	528.4	15.6	36.12	1518.27
83.2	20.5	36.53	1525.75	547.6	15.1	36.07	1516.98
88.9	20.3	36.52	1525.45	573.2	14.5	36.00	1515.43
92.7	20.3	36.55	1525.51	592.3	14.1	35.93	1514.39
98.5	20.1	36.56	1525.20	611.4	13.7	35.88	1513.32
90.8	20.3	36.57	1525.50	630.4	13.3	35.80	1512.30
108.1	19.9	36.54	1524.60	649.4	12.8	35.73	1510.64
128.3	19.3	36.53	1523.39	674.7	12.1	35.68	1508.89
148.4	19.0	36.53	1522.86	693.6	11.7	35.61	1507.62
168.4	18.8	36.52	1522.60	712.4	11.2	35.53	1505.95
188.4	18.7	36.51	1522.43	731.2	10.8	35.49	1504.77
208.4	18.5	36.51	1522.41	750.0	10.3	35.41	1503.51

NADC XBT 2

02/2130Z JUN 87

31° 02' 45" N

075° 56' 37" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
6	26.5	36.26	1539.34	551	15.8	36.12	1519.35
12	26.5	36.27	1539.37	572	15.4	36.07	1518.39
16	26.4	36.27	1539.32	594	15.0	36.00	1517.35
21	26.4	36.35	1539.33	611	14.6	35.93	1516.17
27	25.9	36.38	1538.44	632	14.2	35.88	1515.13
33	25.2	36.43	1536.98	653	13.7	35.80	1513.79
37	25.1	36.50	1536.76	669	13.3	35.73	1512.76
41	24.8	36.55	1536.19	690	12.8	35.61	1511.16
45	24.6	36.57	1535.71	711	12.2	35.53	1509.43
51	24.2	36.53	1534.98	732	11.7	35.49	1507.97
57	23.6	36.54	1533.49	753	11.3	35.41	1506.90
61	23.5	36.54	1533.26	770	10.9	35.35	1505.67
65	23.5	36.56	1533.34	791	10.4	35.31	1504.07
72	22.8	36.54	1531.64	811	9.9	35.25	1502.75
78	22.1	36.53	1530.03	832	9.5	35.21	1501.49
82	22.0	36.53	1529.71	853	9.2	35.18	1500.67
86	21.8	36.52	1529.40	869	8.8	35.15	1499.43
92	21.5	36.55	1528.63	894	8.3	35.12	1498.15
97	21.0	36.56	1527.54	910	8.1	35.11	1497.49
110	20.5	36.57	1526.24	931	7.8	35.10	1496.62
130	19.9	36.54	1525.05	952	7.4	35.08	1495.51
151	19.4	36.53	1523.90	972	7.1	35.07	1494.42
171	19.1	36.53	1523.37	992	6.8	35.07	1493.58
191	18.8	36.52	1522.97	1009	6.6	35.06	1493.22
211	18.7	36.51	1522.85	1045	6.2	35.05	1492.14
231	18.5	36.51	1522.75	1098	5.7	35.04	1491.01
251	18.4	36.50	1522.74	1146	5.4	35.03	1490.51
272	18.3	36.50	1522.73	1194	5.1	35.02	1490.20
292	18.2	36.48	1522.69	1246	4.8	35.01	1489.71
312	18.1	36.48	1522.67	1298	4.6	35.00	1489.82
332	18.0	36.48	1522.71	1345	4.5	34.98	1490.04
351	17.9	36.46	1522.68	1397	4.4	34.98	1490.28
371	17.8	36.44	1522.71	1447	4.3	34.97	1490.74
391	17.6	36.43	1522.56	1494	4.2	34.97	1491.19
411	17.4	36.41	1522.36	1544	4.1	34.97	1491.69
431	17.3	36.38	1522.25	1599	4.1	34.96	1492.28
451	17.1	36.36	1522.05	1648	4.0	34.96	1492.99
470	16.9	36.33	1521.58	1698	4.0	34.96	1493.75
490	16.7	36.28	1521.15	1747	4.0	34.95	1494.35
511	16.4	36.25	1520.72	1796	3.9	34.96	1494.91
534	16.1	36.18	1520.14	1826	3.9	34.96	1495.29

NADC-38 XBT 3

05/0100Z JUN 87

31° 02' 14" N

076° 04' 46" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
10.9	26.4	36.27	1539.23	553.9	16.0	36.07	1519.84
16.4	26.4	36.27	1539.18	574.4	15.6	36.00	1518.87
21.8	26.3	36.35	1539.10	588.1	15.3	35.93	1518.20
27.3	26.1	36.38	1538.73	608.6	14.9	35.88	1517.21
32.7	25.9	36.43	1538.60	629.0	14.5	35.80	1516.24
38.2	25.6	36.50	1538.08	649.4	14.1	35.73	1515.22
43.6	25.4	36.55	1537.68	669.8	13.7	35.68	1514.11
49.1	25.1	36.57	1537.09	690.1	13.1	35.61	1512.20
54.5	24.6	36.53	1535.96	710.4	12.7	35.53	1511.19
59.9	24.5	36.54	1535.64	730.7	12.1	35.49	1509.55
65.4	24.4	36.54	1535.68	750.9	11.7	35.41	1508.37
70.8	23.6	36.56	1533.80	771.1	11.3	35.35	1507.13
76.2	23.5	36.54	1533.60	791.2	10.8	35.31	1505.75
81.7	23.3	36.53	1533.07	811.4	10.4	35.25	1504.39
87.1	22.9	36.53	1532.25	831.4	9.9	35.21	1503.10
92.5	22.5	36.52	1531.37	851.5	9.5	35.18	1501.79
97.9	22.4	36.55	1531.20	871.5	8.7	35.15	1499.11
103.4	22.2	36.56	1530.71	891.5	8.7	35.12	1499.33
111.5	21.9	36.54	1530.11	911.4	8.4	35.11	1498.73
133.1	21.3	36.53	1528.71	931.3	8.1	35.10	1497.60
152.0	20.5	36.53	1526.91	951.2	7.8	35.08	1496.92
170.9	19.9	36.52	1525.51	971.0	7.4	35.07	1495.58
192.5	19.4	36.51	1524.70	990.8	7.0	35.07	1494.45
213.3	19.2	36.51	1524.24	1010.6	6.9	35.06	1494.23
234.4	19.0	36.50	1524.05	1063.1	6.3	35.05	1492.76
255.5	18.8	36.50	1523.95	1115.3	5.8	35.04	1491.89
269.5	18.7	36.48	1523.76	1167.3	5.4	35.03	1491.07
290.6	18.6	36.48	1523.74	1219.1	5.2	35.02	1490.84
311.6	18.4	36.48	1523.69	1270.5	4.9	35.01	1490.67
332.5	18.3	36.46	1523.56	1321.7	4.8	35.00	1491.02
353.5	18.2	36.44	1523.57	1372.7	4.6	34.98	1491.04
374.4	18.0	36.43	1523.49	1423.4	4.5	34.98	1491.45
395.2	17.9	36.41	1523.54	1473.9	4.4	34.97	1491.83
409.1	17.7	36.38	1523.12	1524.1	4.3	34.97	1492.14
429.9	17.6	36.36	1522.94	1574.0	4.2	34.97	1492.69
450.6	17.2	36.33	1522.10	1623.7	4.2	34.96	1493.31
471.3	17.0	36.28	1522.01	1673.1	4.2	34.96	1493.91
492.0	17.0	36.25	1522.13	1722.3	4.1	34.96	1494.48
512.7	16.7	36.18	1521.42	1771.2	4.1	34.95	1495.41
533.3	16.4	36.12	1520.78	1813.8	4.1	34.96	1496.08

NADC-38 XBT4

05/1008Z JUN 87

31° 00' 06" N

076° 00' 01" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.4	26.2	36.26	1538.66	409.1	17.5	36.38	1522.59
8.9	26.2	36.27	1538.59	429.9	17.4	36.36	1522.39
16.4	26.1	36.27	1538.51	450.6	17.2	36.33	1522.19
21.8	26.0	36.35	1538.59	471.3	17.0	36.28	1521.80
27.3	26.0	36.38	1538.52	492.0	16.8	36.25	1521.69
32.7	25.7	36.43	1537.97	512.7	16.5	36.18	1520.99
38.2	25.4	36.50	1537.61	533.3	16.2	36.12	1520.23
43.6	25.2	36.55	1537.07	553.9	15.8	36.07	1519.33
49.1	24.9	36.57	1536.47	574.4	15.4	36.00	1518.34
54.5	24.6	36.53	1535.86	588.1	15.2	35.93	1517.76
59.9	24.1	36.54	1534.88	608.6	14.8	35.88	1516.88
65.4	23.7	36.54	1533.87	629.0	14.4	35.80	1515.66
70.8	23.2	36.56	1532.85	649.4	13.9	35.73	1514.54
76.2	22.8	36.54	1531.71	669.8	13.5	35.68	1513.22
81.7	22.5	36.53	1531.15	690.1	12.9	35.61	1511.62
87.1	22.3	36.53	1530.65	710.4	12.4	35.53	1510.28
92.5	21.9	36.52	1529.72	730.7	11.9	35.49	1508.83
97.9	21.8	36.55	1529.49	750.9	11.5	35.41	1507.47
103.4	21.5	36.56	1528.99	771.1	11.0	35.35	1506.01
111.5	21.1	36.54	1528.08	791.2	10.6	35.31	1504.79
133.1	20.5	36.53	1526.58	811.4	10.1	35.25	1503.55
152.0	19.9	36.53	1525.22	831.4	9.7	35.21	1502.12
170.9	19.4	36.52	1524.18	851.5	9.2	35.18	1500.58
192.5	19.1	36.51	1523.71	871.5	8.6	35.15	1498.85
213.3	18.8	36.51	1523.34	891.5	8.3	35.12	1498.01
234.4	18.5	36.50	1522.83	911.4	8.0	35.11	1497.07
255.5	18.4	36.50	1522.78	931.3	7.7	35.10	1496.23
269.5	18.4	36.48	1522.85	951.2	7.3	35.08	1495.19
290.6	18.3	36.48	1522.88	971.0	7.1	35.07	1494.38
311.6	18.1	36.48	1522.85	990.8	6.7	35.07	1493.44
332.5	18.0	36.46	1522.88	1010.6	6.5	35.06	1492.78
353.5	17.9	36.44	1522.90	1030.3	6.2	35.05	1491.96
374.4	17.8	36.43	1522.76	1076.1	5.7	35.04	1490.71
395.2	17.6	36.41	1522.66	1128.3	5.3	35.03	1489.78
				1173.8	5.1	35.02	1489.97

NADC-38 XBT 5

05/1008Z JUN 87

31° 00' 06" N

076° 00' 01" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.4	26.8	36.26	1539.91	553.9	15.7	36.07	1518.97
8.9	26.8	36.27	1539.98	574.4	15.2	36.00	1517.81
16.4	26.7	36.27	1539.91	588.1	15.0	35.93	1517.26
21.8	26.6	36.35	1539.76	608.6	14.6	35.88	1516.08
27.3	26.0	36.38	1538.59	629.0	14.2	35.80	1515.02
32.7	25.0	36.43	1536.29	649.4	13.7	35.73	1513.87
38.2	24.6	36.50	1535.68	669.8	13.3	35.68	1512.59
43.6	24.2	36.55	1534.86	690.1	12.9	35.61	1511.49
49.1	23.9	36.57	1534.16	710.4	12.4	35.53	1510.01
54.5	23.5	36.53	1533.29	730.7	11.9	35.49	1508.66
59.9	23.2	36.54	1532.63	750.9	11.3	35.41	1506.91
65.4	22.7	36.54	1531.31	771.1	10.9	35.35	1505.82
70.8	22.4	36.56	1530.72	791.2	10.4	35.31	1504.08
76.2	22.2	36.54	1530.18	811.4	10.0	35.25	1502.93
81.7	21.9	36.53	1529.44	831.4	9.6	35.21	1501.72
87.1	21.5	36.53	1528.72	851.5	9.2	35.18	1500.82
92.5	21.3	36.52	1528.22	871.5	8.8	35.15	1499.52
97.9	21.1	36.55	1527.80	891.5	8.5	35.12	1498.56
103.4	20.9	36.56	1527.43	911.4	8.1	35.11	1497.56
111.5	20.6	36.54	1526.49	931.3	7.8	35.10	1496.48
133.1	19.9	36.53	1525.15	951.2	7.4	35.08	1495.39
152.0	19.5	36.53	1524.35	971.0	7.1	35.07	1494.59
171.6	19.2	36.52	1523.76	990.8	6.8	35.07	1493.75
192.5	19.0	36.51	1523.34	1010.6	6.6	35.06	1493.08
213.3	18.8	36.51	1523.11	1023.7	6.4	35.05	1492.54
234.4	18.6	36.50	1523.00	1076.1	5.8	35.04	1491.13
255.5	18.5	36.50	1522.98	1128.3	5.5	35.03	1490.61
269.5	18.4	36.48	1523.02	1180.3	5.2	35.02	1490.14
290.6	18.3	36.48	1522.98	1225.5	5.0	35.01	1490.20
311.6	18.2	36.48	1523.00	1270.5	4.8	35.00	1490.26
332.5	18.0	36.46	1522.91	1321.7	4.7	34.98	1490.36
353.5	17.9	36.44	1522.90	1372.7	4.5	34.98	1490.45
374.4	17.8	36.43	1522.79	1423.4	4.4	34.97	1490.75
395.2	17.6	36.41	1522.69	1473.9	4.3	34.97	1491.19
409.1	17.6	36.38	1522.71	1524.1	4.2	34.97	1491.68
429.9	17.4	36.36	1522.51	1574.0	4.2	34.96	1492.40
450.6	17.2	36.33	1522.28	1623.7	4.2	34.96	1493.11
471.3	17.0	36.28	1521.93	1673.1	4.1	34.96	1493.70
492.0	16.8	36.25	1521.51	1722.3	4.0	34.95	1494.20
512.7	16.4	36.18	1520.69	1771.2	4.0	34.96	1494.81
533.3	16.1	36.12	1520.05	1813.8	3.9	34.96	1495.26

NADC-38 XBT 6

06/2310Z JUN 87

30° 55' 04" N

076° 21' 23" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.4	26.6	36.26	1539.58	574.4	15.4	36.00	1518.43
8.9	26.6	36.27	1539.58	588.1	15.1	35.93	1517.64
16.4	26.5	36.27	1539.57	608.6	14.7	35.88	1516.61
21.8	26.5	36.35	1539.65	629.0	14.2	35.80	1515.24
27.3	26.1	36.38	1538.80	649.4	13.8	35.73	1514.08
32.7	25.8	36.43	1538.39	669.8	13.4	35.68	1512.96
38.2	25.6	36.50	1537.94	690.1	12.9	35.61	1511.57
43.6	25.4	36.55	1537.68	710.4	12.3	35.53	1509.81
49.1	25.0	36.57	1536.80	730.7	11.9	35.49	1508.85
54.5	24.8	36.53	1536.29	750.9	11.4	35.41	1507.33
59.9	24.5	36.54	1535.66	771.1	10.9	35.35	1505.80
65.4	24.1	36.54	1534.93	791.2	10.4	35.31	1504.37
70.8	23.7	36.56	1534.07	811.4	10.0	35.25	1502.99
76.2	23.4	36.54	1533.20	831.4	9.6	35.21	1501.76
81.7	23.1	36.53	1532.54	851.5	9.2	35.18	1500.82
87.1	22.8	36.53	1531.98	871.5	8.9	35.15	1500.04
92.5	22.5	36.56	1531.44	891.5	8.6	35.12	1498.93
111.5	21.7	36.54	1529.48	911.4	8.2	35.11	1497.71
133.1	20.8	36.53	1527.58	931.3	7.7	35.10	1496.33
152.0	20.3	36.53	1526.44	951.2	7.3	35.08	1495.19
170.9	19.9	36.52	1525.56	971.0	7.1	35.07	1494.38
192.5	19.5	36.51	1524.74	990.8	6.8	35.07	1493.83
213.3	19.1	36.51	1524.13	1010.6	6.6	35.06	1493.21
234.4	18.9	36.50	1523.87	1023.7	6.4	35.05	1492.75
255.5	18.7	36.50	1523.69	1076.1	5.9	35.04	1491.62
269.5	18.6	36.48	1523.65	1128.3	5.6	35.03	1491.07
290.6	18.4	36.48	1523.43	1180.3	5.3	35.02	1490.60
311.6	18.3	36.48	1523.23	1225.5	5.0	35.01	1490.20
332.5	18.0	36.46	1522.88	1270.5	4.8	35.00	1490.22
353.5	17.9	36.44	1522.79	1321.7	4.7	34.98	1490.44
374.4	17.7	36.43	1522.58	1372.7	4.6	34.98	1490.78
395.2	17.6	36.41	1522.54	1423.4	4.5	34.97	1491.44
409.1	17.5	36.38	1522.35	1473.9	4.4	34.97	1491.80
429.9	17.3	36.36	1522.22	1524.1	4.3	34.97	1492.27
450.6	17.1	36.33	1521.77	1574.0	4.3	34.96	1492.85
471.3	16.9	36.28	1521.54	1623.7	4.2	34.96	1493.42
492.0	16.6	36.25	1520.96	1673.1	4.2	34.96	1493.91
512.7	16.4	36.18	1520.60	1722.3	4.1	34.95	1494.49
533.3	16.2	36.12	1520.14	1771.2	4.0	34.96	1495.01
553.9	15.8	36.07	1519.21	1813.8	4.0	34.96	1495.58

NADC-38 XBT 7

07/1740Z JUN 87

31° 01' 53" N

076° 09' 41" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.4	25.4	36.26	1536.76	574.4	15.1	36.00	1517.43
8.9	25.4	36.27	1536.74	588.1	14.9	35.93	1516.91
16.4	25.1	36.27	1536.31	608.6	14.3	35.88	1515.25
21.8	25.0	36.35	1536.25	629.0	13.8	35.80	1513.75
27.3	25.0	36.38	1536.24	649.4	13.2	35.73	1512.27
32.7	24.9	36.43	1536.25	669.8	13.0	35.68	1511.73
38.2	24.4	36.50	1535.05	690.1	12.5	35.61	1510.24
43.6	23.8	36.55	1533.78	710.4	12.0	35.53	1508.75
49.1	23.6	36.57	1533.37	730.7	11.6	35.49	1507.75
54.5	23.0	36.53	1532.04	750.9	11.2	35.41	1506.60
59.9	22.8	36.54	1531.55	771.1	10.8	35.35	1505.45
65.4	22.5	36.54	1530.83	791.2	10.3	35.31	1504.05
70.8	21.9	36.54	1529.47	811.4	9.9	35.25	1502.84
76.2	21.7	36.53	1528.88	831.4	9.5	35.21	1501.68
81.7	21.3	36.53	1528.08	851.5	9.2	35.18	1500.73
87.1	21.0	36.52	1527.36	871.5	8.8	35.15	1499.60
92.5	20.8	36.55	1526.78	891.5	8.5	35.12	1498.63
97.9	20.5	36.56	1526.26	911.4	8.1	35.11	1497.60
103.4	20.3	36.57	1525.81	931.3	7.8	35.10	1496.71
111.5	20.2	36.54	1525.45	951.2	7.3	35.08	1494.96
133.1	19.7	36.53	1524.50	971.0	7.1	35.07	1494.42
152.0	19.4	36.53	1524.03	990.8	6.9	35.07	1493.90
170.9	19.2	36.52	1523.56	1010.6	6.7	35.06	1493.66
192.5	18.9	36.51	1523.26	1023.7	6.5	35.05	1493.22
213.3	18.8	36.51	1523.23	1076.1	5.9	35.04	1491.58
234.4	18.6	36.50	1523.06	1128.3	5.6	35.03	1491.06
255.5	18.5	36.50	1522.92	1180.3	5.3	35.02	1490.55
269.5	18.4	36.48	1522.85	1225.5	5.0	35.01	1490.18
290.6	18.2	36.48	1522.77	1270.5	4.8	35.00	1490.05
311.6	18.1	36.48	1522.77	1321.7	4.6	34.98	1490.21
353.5	17.9	36.44	1522.73	1372.7	4.5	34.98	1490.52
374.4	17.7	36.43	1522.60	1423.4	4.4	34.97	1490.88
395.2	17.6	36.41	1522.51	1473.9	4.3	34.97	1491.21
409.1	17.4	36.38	1522.06	1524.1	4.2	34.97	1491.68
429.9	17.2	36.36	1521.91	1574.0	4.1	34.96	1492.20
450.6	17.1	36.33	1521.80	1623.7	4.1	34.96	1492.86
471.3	16.8	36.28	1521.17	1673.1	4.0	34.96	1493.43
492.0	16.5	36.25	1520.78	1722.3	4.0	34.95	1493.98
512.7	16.3	36.18	1520.36	1771.2	4.0	34.96	1494.92
533.3	15.9	36.12	1519.28	1813.8	4.0	34.96	1495.57
553.9	15.4	36.07	1518.10				

NADC XBT 8

08/0600Z JUN 87

31° 02' 27" N

076° 01' 52" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
4.8	25.2	36.26	1536.14	588.1	15.5	35.93	1518.70
9.6	25.0	36.27	1535.95	608.6	15.1	35.88	1517.62
16.4	24.9	36.27	1535.69	629.0	14.8	35.80	1517.10
21.8	24.9	36.35	1535.96	649.4	14.4	35.73	1516.18
27.3	24.4	36.38	1534.75	669.8	14.1	35.68	1515.44
32.7	24.1	36.43	1534.17	690.1	13.6	35.61	1513.79
38.2	23.9	36.50	1533.86	710.4	13.1	35.53	1512.63
43.6	23.4	36.55	1532.79	730.7	12.7	35.49	1511.55
49.1	23.0	36.57	1531.92	750.9	12.3	35.41	1510.22
54.5	22.2	36.53	1529.90	771.1	11.9	35.35	1509.28
59.9	21.8	36.54	1529.03	791.2	11.5	35.31	1508.24
65.4	21.5	36.54	1528.39	811.4	10.9	35.25	1506.20
70.8	21.2	36.56	1527.64	831.4	10.6	35.21	1505.32
76.2	21.0	36.54	1527.05	851.5	10.2	35.18	1504.29
81.7	20.8	36.53	1526.61	871.5	9.7	35.15	1502.91
87.1	20.6	36.52	1526.23	891.5	9.4	35.12	1501.92
92.5	20.5	36.55	1526.05	911.4	8.9	35.11	1500.30
97.9	20.4	36.56	1525.88	931.3	8.8	35.10	1500.31
103.4	20.4	36.57	1525.89	951.2	8.6	35.08	1499.91
111.5	20.2	36.54	1525.64	971.0	8.1	35.07	1498.54
132.2	19.8	36.53	1524.80	990.8	7.8	35.07	1497.54
152.0	19.4	36.53	1523.84	1010.6	8.0	35.06	1498.78
169.9	19.2	36.52	1523.73	1023.7	7.7	35.05	1497.62
192.5	18.9	36.51	1523.26	1076.1	6.6	35.04	1494.33
213.3	18.8	36.51	1523.25	1128.3	6.1	35.03	1493.22
234.4	18.7	36.50	1523.30	1180.3	5.7	35.02	1492.47
255.5	18.5	36.50	1523.12	1225.5	5.6	35.01	1492.52
269.5	18.4	36.48	1523.05	1270.5	5.5	35.00	1492.86
290.6	18.3	36.48	1523.07	1321.9	5.2	34.98	1492.41
311.6	18.2	36.48	1523.17	1372.7	5.0	34.98	1492.70
395.2	17.5	36.41	1522.16	1423.4	4.9	34.97	1492.97
409.1	17.2	36.38	1521.64	1473.9	4.8	34.97	1493.18
429.9	17.2	36.36	1521.92	1524.1	4.7	34.97	1493.78
471.3	17.1	36.28	1522.28	1574.0	4.6	34.96	1494.14
492.0	17.0	36.25	1522.04	1623.7	4.5	34.96	1494.55
512.7	16.7	36.18	1521.64	1673.1	4.4	34.96	1495.03
533.3	16.4	36.12	1520.75	1722.3	4.5	34.95	1495.94
553.9	16.0	36.07	1519.97	1771.2	4.5	34.96	1497.11
574.4	15.7	36.00	1519.37				

NADC-38 XBT 9

08/0812Z JUN 87

30° 53' 32" N

076° 02' 09" W

DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC	DEPTH METERS	TEMP DEG C	SALIN PPT	SOUND SPEED METER/SEC
3.4	24.9	36.26	1535.63	374.4	17.8	36.43	1522.90
8.9	24.9	36.27	1535.51	395.2	17.7	36.41	1522.86
16.4	24.8	36.27	1535.57	409.1	17.6	36.38	1522.74
21.8	24.8	36.35	1535.63	429.9	17.4	36.36	1522.35
27.3	24.2	36.38	1534.26	450.6	17.1	36.33	1521.92
32.7	23.6	36.43	1533.11	471.3	16.9	36.28	1521.51
38.2	23.0	36.50	1531.59	492.0	16.7	36.25	1521.11
43.6	22.3	36.55	1529.97	512.7	16.4	36.18	1520.55
49.1	22.0	36.57	1529.31	533.3	16.1	36.12	1519.80
54.5	21.7	36.53	1528.54	553.9	15.3	36.07	1517.73
59.9	21.5	36.54	1528.08	588.1	15.2	35.93	1517.82
65.4	21.3	36.54	1527.75	608.6	14.6	35.88	1516.31
76.2	21.0	36.54	1527.02	629.0	14.2	35.80	1515.08
81.7	20.9	36.53	1526.93	649.4	13.6	35.73	1513.59
87.1	20.8	36.52	1526.64	669.8	13.2	35.68	1512.26
92.5	20.7	36.55	1526.59	690.1	12.8	35.61	1511.20
97.9	20.5	36.56	1526.10	710.4	12.1	35.53	1509.16
103.4	20.3	36.57	1525.68	730.7	11.6	35.49	1507.68
111.5	20.0	36.54	1524.88	750.9	11.2	35.41	1506.46
133.1	19.5	36.53	1524.02	771.1	10.7	35.35	1505.14
152.0	19.3	36.53	1523.80	791.2	10.3	35.31	1503.83
170.9	19.1	36.52	1523.38	811.4	9.8	35.25	1502.34
192.5	18.9	36.51	1523.12	831.4	9.2	35.21	1500.44
213.3	18.8	36.51	1523.14	851.5	8.8	35.18	1499.19
234.4	18.6	36.50	1523.09	871.5	8.4	35.15	1498.10
255.5	18.5	36.50	1523.07	891.5	8.2	35.12	1497.60
269.5	18.4	36.48	1522.96	911.4	7.9	35.11	1496.69
290.6	18.3	36.48	1523.04	931.3	7.6	35.10	1495.93
311.6	18.2	36.48	1523.03	951.2	7.2	35.08	1494.65
332.5	18.1	36.46	1523.10	971.0	7.0	35.07	1494.10
353.5	17.9	36.44	1522.93	990.6	6.8	35.07	1493.59

LYNCH XSV 04

03/2355Z JUN 87

30° 58' 28" N

076° 02' 43" W

LYNCH XSV 08

05/0925Z JUN 87

30° 59' 52" N

075° 57' 54" W

DEPTH METERS	SOUND SPEED METER/SEC	DEPTH METERS	SOUND SPEED METER/SEC	DEPTH METERS	SOUND SPEED METER/SEC	DEPTH METERS	SOUND SPEED METER/SEC
5.4	1539.6	542.9	1518.7	3.4	1538.8	554.0	1517.8
11.8	1539.7	565.1	1517.8	8.4	1539.6	570.6	1516.5
16.8	1539.5	587.3	1516.4	13.4	1539.9	587.3	1515.8
21.8	1539.0	609.4	1514.9	18.5	1539.3	609.4	1514.8
26.8	1537.9	625.9	1514.6	23.4	1538.3	631.4	1513.5
31.8	1537.4	642.4	1513.5	28.5	1536.1	653.4	1511.9
36.8	1536.7	664.4	1511.5	33.5	1534.8	669.9	1510.5
41.9	1536.0	686.3	1509.8	38.5	1533.8	686.3	1509.6
46.8	1534.5	708.2	1508.2	43.5	1533.6	708.2	1507.8
51.9	1533.6	730.1	1506.3	48.5	1533.6	730.1	1506.4
56.9	1533.7	746.4	1505.2	53.5	1533.5	751.8	1504.5
61.9	1533.8	762.7	1504.3	58.6	1532.3	773.5	1503.1
66.9	1532.7	784.4	1502.5	63.5	1530.7	789.8	1501.3
71.9	1531.6	806.0	1501.2	68.6	1530.0	806.0	1501.0
76.9	1530.6	827.6	1499.9	73.5	1529.7	827.6	1499.6
81.9	1529.7	849.1	1499.0	78.6	1529.0	849.1	1498.5
86.8	1528.8	870.6	1497.9	83.5	1528.1	870.6	1497.4
91.9	1528.1	886.7	1497.0	88.5	1527.6	892.1	1496.3
96.8	1527.6	902.8	1495.8	93.5	1527.0	913.4	1495.4
100.1	1527.0	924.1	1494.9	96.8	1526.9	934.8	1494.1
86.8	1529.0	945.4	1494.3	90.2	1527.5	950.7	1492.9
107.3	1526.4	966.6	1493.4	110.9	1525.8	966.6	1492.8
128.3	1524.7	987.8	1492.5	134.1	1524.9	987.8	1492.2
145.7	1524.2	1009.0	1492.1	151.5	1524.1	1009.0	1491.5
168.9	1523.6	1045.9	1491.5	168.9	1524.0	1045.9	1491.4
186.1	1523.3	1098.2	1491.1	191.9	1523.7	1098.2	1490.7
203.5	1523.1	1150.3	1491.1	209.2	1523.5	1150.3	1491.0
226.5	1523.2	1202.1	1491.1	226.5	1523.3	1202.1	1491.1
249.4	1523.0	1253.5	1491.3	249.4	1523.2	1253.5	1491.2
266.5	1523.1	1299.5	1491.4	272.3	1523.1	1299.5	1491.4
283.7	1523.3	1345.3	1491.7	289.4	1523.1	1345.3	1491.9
306.5	1523.3	1395.8	1492.2	306.5	1523.2	1395.8	1492.7
329.3	1523.5	1446.0	1492.8	329.3	1523.4	1446.0	1493.4
346.3	1523.4	1495.9	1493.6	352.0	1523.3	1495.9	1494.1
363.3	1523.3	1545.4	1494.8	368.9	1523.3	1545.4	1494.9
386.0	1523.0	1599.5	1495.0	386.0	1523.2	1599.5	1495.5
408.5	1522.9	1653.3	1496.0	408.5	1522.9	1653.3	1496.2
431.0	1522.5	1701.8	1496.4	431.0	1522.6	1701.8	1496.9
447.9	1521.9	1749.9	1497.8	453.5	1521.9	1749.9	1497.3
464.7	1521.5	1797.8	1497.7	470.3	1521.2	1797.8	1498.4
487.1	1521.0	1850.1	1498.8	487.1	1520.8	1850.1	1499.1
509.5	1520.1	1901.9	1499.4	509.5	1520.1	1901.9	1500.0
526.2	1519.5			531.8	1519.0	1939.4	1501.0

Appendix C

Expendable Current Profile Plots and Tabulations

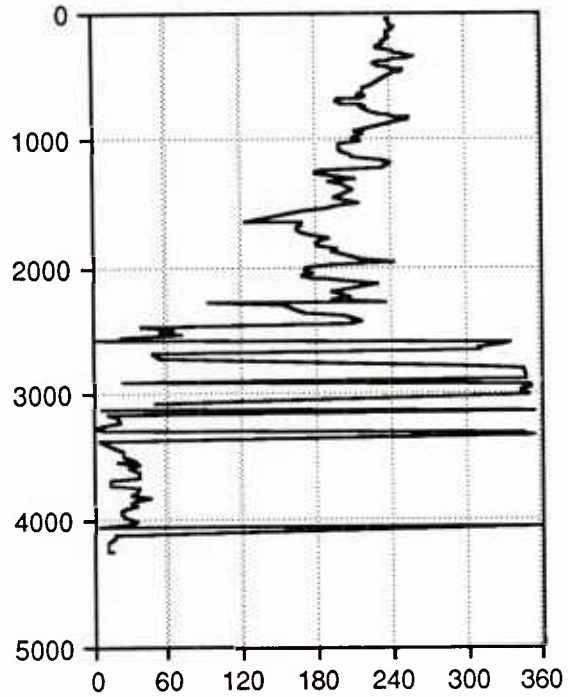
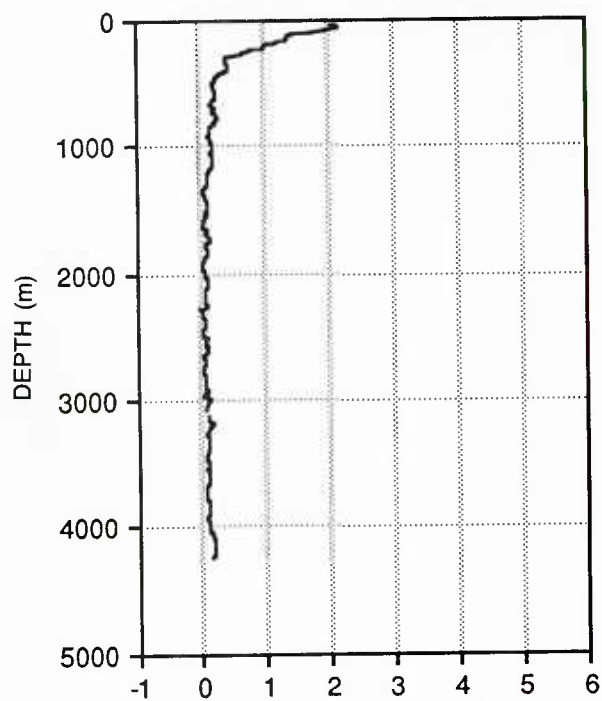
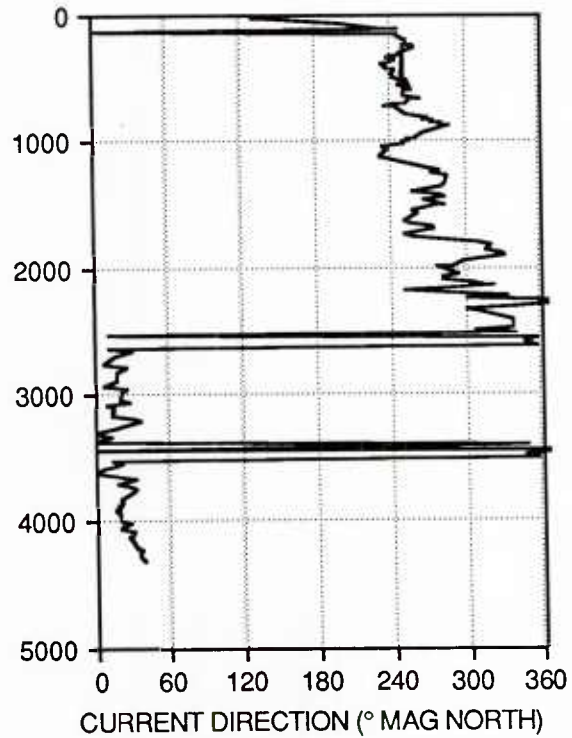
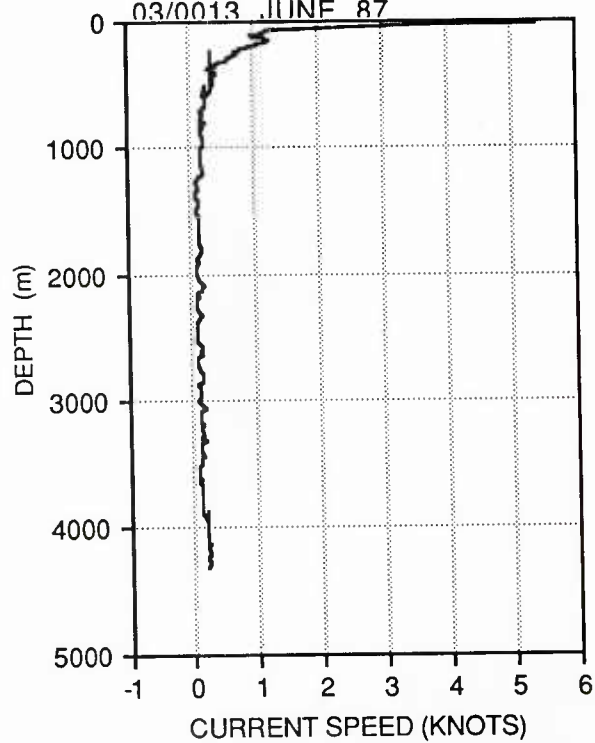
Depth in Feet
Current Speed in Knots
Current Direction Relative to Magnetic North

BROADBAND '87

USNS LYNCH

PROFILE #1

03/0013 JUNE 87

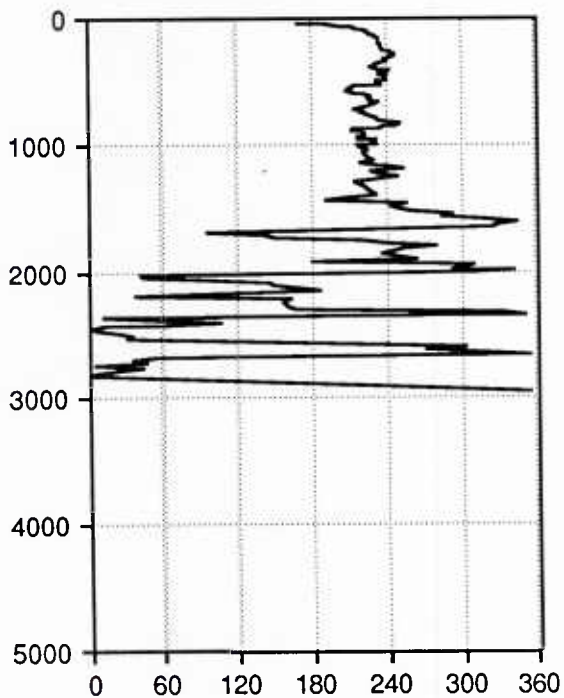
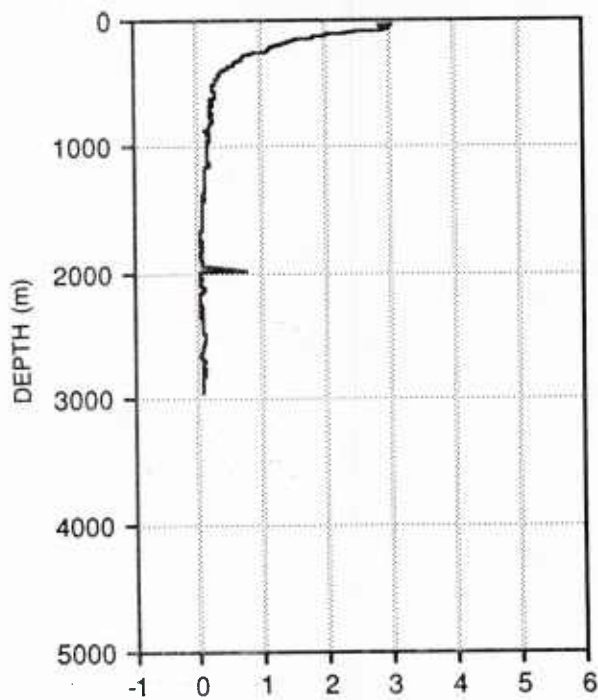
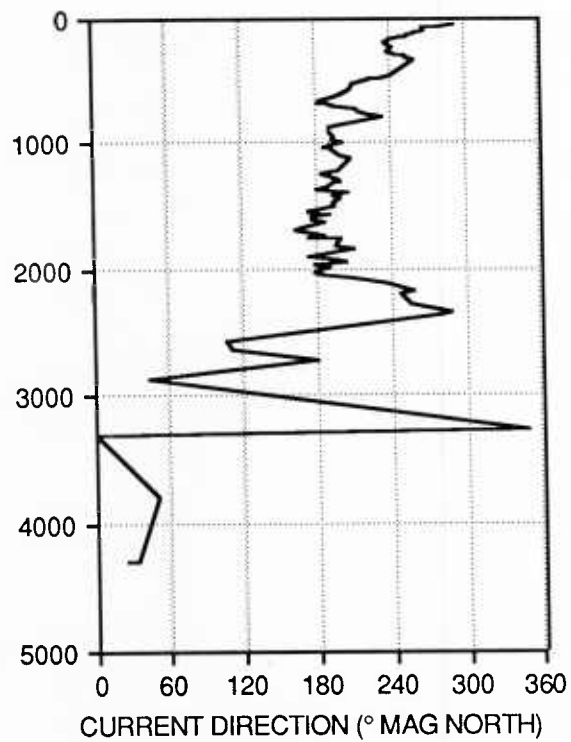
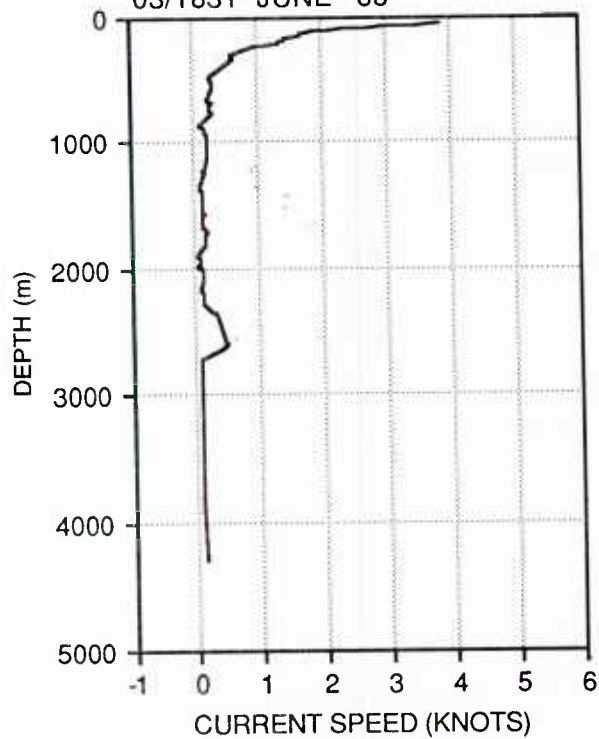


PROFILE #2

03/1808 JUNE 87

PROFILE #3

03/1831 JUNE '88

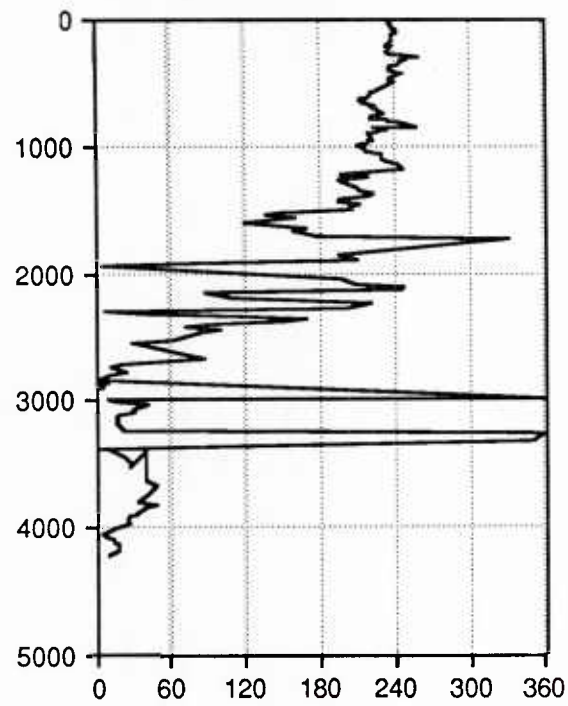
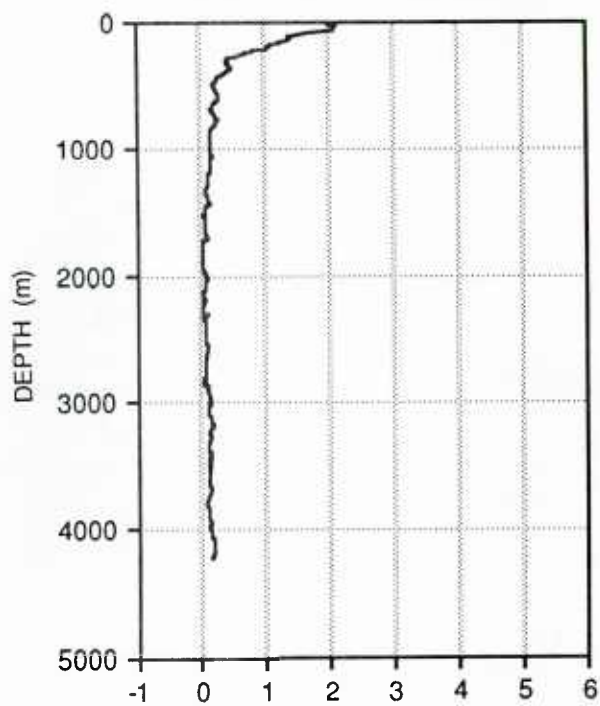
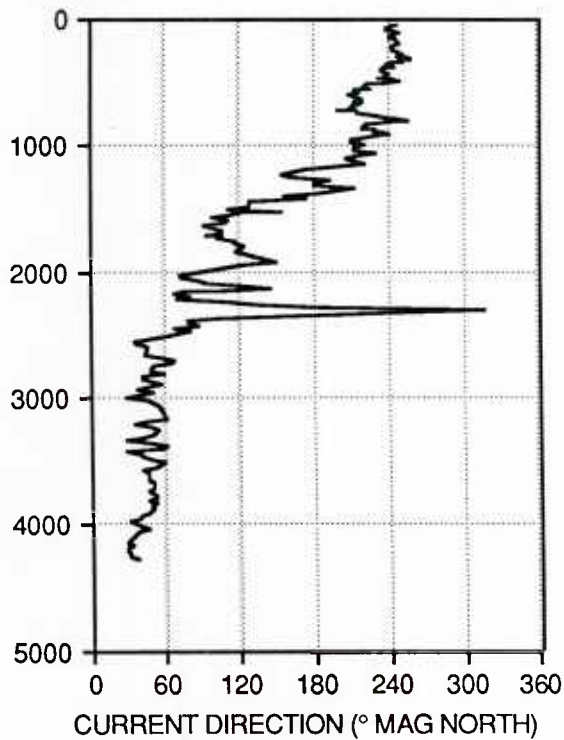
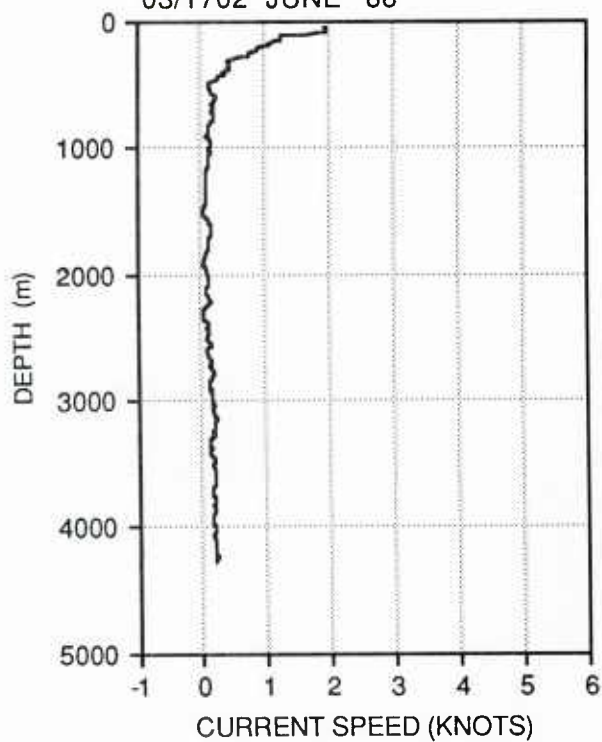


PROFILE #4

03/1433 JUNE '87

PROFILE #5

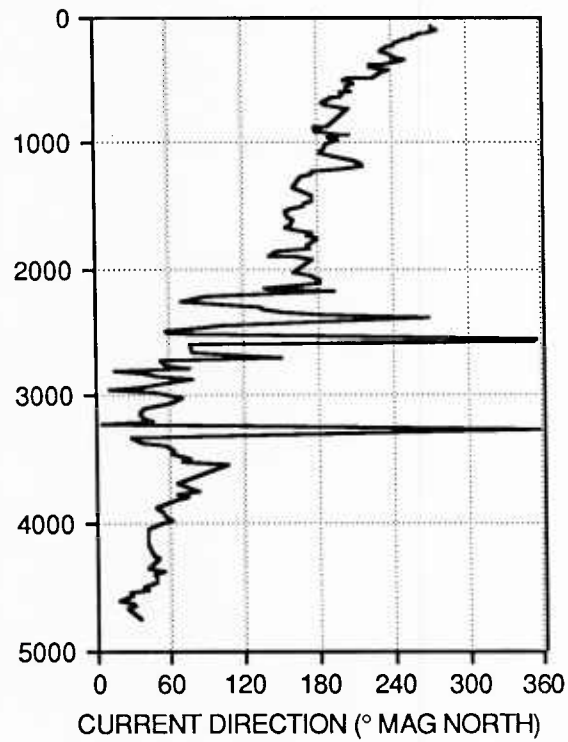
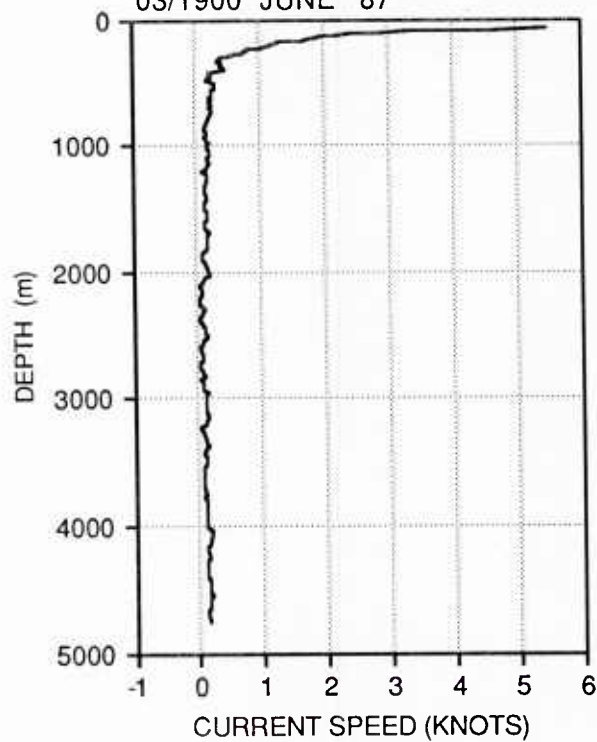
03/1702 JUNE '88



PROFILE #6

03/1746 JUNE '87

PROFILE #7
03/1900 JUNE '87



BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #1
 03/0013 JUNE 87 30° 58' 25"N, 76°00' 26"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
22.2	5.37	129.9	838.3	.18	274.0	2523.1	.07	11.1	4209.3	.24	32.9
32.8	4.10	135.2	847.9	.18	273.2	2542.9	.09	347.6	4230.0	.20	36.9
78.9	1.26	201.5	857.6	.15	280.6	2562.6	.10	356.5	4250.7	.21	35.8
106.8	1.06	231.5	867.3	.17	279.6	2582.3	.14	346.6	4271.4	.22	36.6
116.4	.96	242.8	877.0	.17	286.2	2602.1	.14	348.2	4320.2	.20	39.9
126.0	.96	247.6	868.8	.14	287.2	2621.8	.12	356.1			
135.7	1.05	1.0	933.7	.20	265.9	2641.7	.13	12.5			
145.4	1.14	1.1	971.8	.18	258.9	2661.5	.06	31.9			
155.1	1.21	245.0	981.5	.20	253.7	2700.3	.08	16.8			
164.7	1.23	245.9	991.1	.19	256.3	2768.2	.11	7.1			
174.3	1.15	247.7	1000.8	.17	250.2	2788.0	.15	27.9			
183.9	1.06	249.7	1020.2	.16	251.6	2827.2	.15	17.3			
193.6	1.05	250.7	1039.6	.15	233.0	2847.1	.15	17.4			
203.2	.93	252.6	1058.9	.17	238.2	2867.0	.06	17.5			
212.9	.85	252.9	1106.8	.15	234.0	2886.9	.12	17.7			
222.6	.78	253.3	1126.1	.15	231.7	2926.1	.13	7.3			
232.4	.76	254.2	1199.8	.18	267.4	2946.0	.10	28.0			
242.0	.74	255.5	1219.1	.14	278.3	2975.9	.13	23.4			
251.7	.71	258.4	1238.5	.11	273.5	2995.8	.08	21.8			
261.4	.73	259.6	1257.9	.10	273.3	3035.2	.15	19.8			
308.7	.56	249.4	1277.2	.09	284.6	3055.1	.18	29.4			
318.4	.57	246.3	1324.8	.10	283.9	3075.2	.13	9.5			
328.1	.47	243.5	1362.8	.09	282.1	3095.2	.12	16.0			
337.7	.41	238.0	1400.8	.08	257.8	3115.2	.13	16.8			
347.4	.36	240.1	1420.1	.10	278.5	3135.2	.10	13.7			
357.1	.38	245.7	1439.5	.10	283.6	3155.2	.10	13.5			
366.9	.39	243.7	1459.0	.12	266.0	3175.3	.15	30.7			
376.7	.34	242.3	1497.0	.07	284.3	3195.3	.13	37.8			
386.4	.30	239.0	1506.7	.09	276.2	3264.2	.13	13.3			
396.1	.33	234.1	1544.9	.11	256.7	3284.3	.13	4.3			
405.8	.38	236.4	1564.2	.10	261.3	3304.3	.19	3.5			
415.5	.41	236.5	1621.9	.11	251.5	3324.5	.12	13.6			
425.1	.41	238.3	1641.2	.11	255.3	3344.6	.12	5.6			
434.9	.38	244.9	1660.7	.10	272.5	3364.7	.13	.3			
463.5	.32	242.9	1698.9	.12	275.7	3384.9	.13	347.1			
473.2	.36	241.1	1736.9	.12	251.2	3424.5	.14	1.4			
482.8	.35	243.6	1756.3	.13	256.7	3444.6	.10	375.1			
492.5	.35	241.6	1794.6	.15	309.2	3484.3	.11	346.9			
503.2	.35	243.5	1814.1	.17	320.1	3504.5	.11	357.3			
530.6	.31	250.3	1861.8	.12	316.3	3524.7	.08	14.8			
240.3	.33	252.0	1881.3	.08	329.0	3544.8	.08	23.7			
550.0	.31	249.8	1900.7	.11	330.8	3565.1	.06	15.2			
559.7	.31	247.1	1938.9	.09	299.0	3585.3	.06	8.0			
569.4	.27	252.3	1977.3	.08	290.2	3605.5	.06	3.6			
597.9	.22	253.9	1987.1	.06	276.0	3625.7	.10	3.1			
607.6	.21	258.3	2044.9	.13	294.1	3646.0	.08	19.4			
517.3	.22	254.3	2064.5	.16	282.1	3666.2	.10	33.2			
627.0	.22	250.3	2084.0	.18	281.3	3716.2	.12	18.2			
636.6	.22	250.1	2103.6	.17	305.1	3736.6	.11	30.0			
646.3	.24	252.0	2123.2	.14	313.0	3756.8	.12	33.4			
656.0	.25	263.3	2142.7	.10	322.8	3777.2	.11	31.1			
665.7	.23	256.0	2162.2	.06	292.6	3836.5	.11	20.8			
675.5	.22	255.0	2181.9	.10	250.1	3856.8	.12	23.3			
685.2	.21	254.1	2201.4	.05	285.8	3896.9	.13	20.1			
694.9	.18	253.0	2221.0	.08	333.1	3917.3	.16	15.4			
704.5	.17	252.8	2240.6	.07	301.6	3954.8	.19	20.7			
714.2	.17	245.1	2260.2	.07	394.8	3875.2	.19	18.1			
723.9	.16	235.8	2298.8	.12	339.0	3995.6	.19	20.0			
733.6	.16	244.9	2318.4	.13	301.4	4016.0	.18	29.1			
743.3	.18	246.1	2337.9	.11	311.4	4036.5	.19	22.6			
789.7	.17	253.2	2376.8	.08	328.5	4057.0	.19	20.2			
799.4	.22	266.1	2415.6	.05	337.6	4077.5	.17	31.6			
809.2	.21	266.0	2463.9	.08	336.4	4117.7	.20	29.9			
818.9	.19	269.5	2483.7	.09	307.4	4138.2	.23	27.1			
828.6	.17	266.7	2503.3	.08	338.5	4158.8	.20	28.6			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #2
 03/1808 JUNE 87 30° 59' 54"N, 75° 59' 38"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
45.3	2.06	239.7	932.0	.10	213.7	2468.6	.02	39.5	4055.2	.14	6.1
54.7	2.14	239.2	941.5	.13	212.9	2487.7	.05	66.0	4075.1	.15	358.5
64.1	2.18	239.8	951.0	.16	217.1	2506.8	.09	53.9	4123.2	.18	19.4
101.0	1.94	240.3	960.4	.15	219.5	2526.0	.09	72.4	4143.1	.21	19.0
110.3	1.70	243.3	987.9	.19	211.1	2545.1	.08	23.9	4190.0	.18	12.8
119.6	1.51	244.0	997.3	.19	212.3	2564.2	.12	22.7	4229.2	.18	11.6
128.9	1.37	241.6	1024.9	.18	215.7	2583.5	.09	.4	4249.2	.17	11.3
166.1	1.38	238.4	1043.7	.17	198.8	2602.5	.10	334.8	4259.2	.16	16.7
175.5	1.32	238.7	1062.4	.17	199.4	2621.7	.09	326.7			
184.8	1.25	238.5	1081.3	.18	198.9	2640.9	.07	309.6			
194.2	1.15	239.1	1100.2	.18	201.2	2660.1	.02	312.5			
203.6	1.02	239.5	1119.0	.18	208.1	2679.3	.06	48.3			
231.3	.97	234.3	1137.8	.17	210.6	2726.0	.05	54.1			
240.8	.90	234.2	1156.7	.18	228.9	2763.9	.03	206.7			
250.2	.84	235.4	1175.6	.20	232.5	2783.1	.04	292.9			
259.6	.73	234.4	1194.3	.15	240.0	2802.4	.06	347.1			
269.0	.69	231.9	1230.8	.10	233.1	2866.0	.08	348.1			
278.4	.65	230.3	1249.6	.12	185.3	2885.3	.07	348.7			
306.4	.42	243.3	1268.3	.11	180.5	2904.7	.06	24.9			
315.9	.40	244.1	1314.4	.10	212.9	2923.9	.09	351.2			
325.4	.39	247.0	1333.2	.08	189.8	2943.2	.06	352.3			
334.8	.42	249.9	1352.0	.04	200.5	2962.6	.04	343.3			
344.2	.41	254.4	1398.5	.08	209.5	2981.8	.07	347.7			
353.6	.43	259.1	1462.3	.11	194.1	3001.3	.15	344.8			
363.1	.45	252.6	1499.3	.09	214.1	3020.6	.12	350.7			
372.6	.46	245.6	1518.2	.05	197.2	3086.1	.09	50.4			
382.1	.44	237.6	1537.0	.10	189.5	311.1	.08	39.5			
391.6	.45	232.2	1574.1	.07	169.6	3124.9	.11	6.8			
401.0	.45	227.0	1638.8	.04	123.8	3144.3	.13	353.6			
410.4	.45	227.4	1657.7	.07	168.6	3163.7	.13	12.0			
419.8	.42	228.6	1676.5	.10	170.1	3183.0	.17	20.8			
429.2	.35	232.2	1695.2	.08	165.6	3221.0	.10	22.6			
438.6	.30	235.1	1714.2	.11	164.3	3240.4	.11	9.0			
448.1	.28	243.8	1733.0	.15	169.4	3259.9	.07	1.7			
457.5	.27	251.8	1751.8	.14	177.5	3279.2	.11	8.9			
466.9	.25	248.7	1770.7	.08	189.8	3298.7	.10	345.1			
476.4	.25	245.4	1789.6	.09	184.6	3318.1	.11	327.1			
485.8	.25	240.2	1808.4	.10	179.5	3337.6	.10	353.8			
522.8	.20	236.4	1845.5	.10	181.6	3375.8	.11	4.9			
577.9	.25	224.7	1864.4	.11	197.5	3395.4	.11	10.6			
587.3	.24	224.6	1883.2	.08	193.9	3452.8	.08	25.5			
596.8	.25	218.3	1948.0	.01	216.5	3491.1	.09	24.2			
606.3	.24	217.8	1967.0	.04	242.1	3510.5	.11	30.8			
633.7	.22	219.6	1986.0	.08	193.7	3530.1	.11	35.6			
643.1	.17	216.9	2004.8	.06	173.9	3549.6	.08	20.9			
652.6	.20	213.8	2023.7	.06	172.3	3569.2	.09	38.6			
662.1	.18	219.8	2042.7	.10	177.6	3588.7	.11	30.1			
671.5	.20	221.1	2061.6	.12	170.3	3608.3	.09	33.7			
680.9	.15	216.2	2080.5	.10	178.5	3627.8	.10	38.4			
690.3	.19	200.4	2099.5	.12	187.4	3666.2	.09	36.7			
699.7	.19	198.1	2118.5	.13	204.8	3685.7	.06	13.3			
709.1	.23	200.3	2137.3	.07	230.3	3705.4	.07	14.5			
718.6	.20	201.5	2193.0	.07	192.4	3724.9	.06	13.0			
728.0	.18	215.4	2212.0	.06	200.9	3744.5	.06	38.5			
737.5	.19	220.9	2231.1	.09	208.2	3800.5	.08	35.2			
746.9	.23	216.8	2250.0	.10	192.8	3820.2	.09	30.9			
792.7	.29	224.9	2270.0	.06	235.0	3839.8	.11	46.8			
802.1	.25	234.9	2288.1	.00	92.8	3859.5	.09	34.7			
811.6	.23	239.0	2307.1	.04	154.1	3879.1	.12	30.5			
821.0	.23	244.5	2344.6	.04	164.1	3898.8	.10	35.4			
830.4	.21	250.2	2363.7	.09	172.0	3918.5	.11	26.6			
839.8	.20	255.6	2382.6	.06	203.9	3938.2	.09	22.4			
849.1	.18	252.7	2401.8	.08	210.5	3976.9	.10	25.0			
858.5	.15	251.7	2420.9	.07	215.7	4015.7	.12	35.2			
904.4	.16	223.2	2439.9	.05	207.0	4035.5	.10	29.6			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #3
 03/1831 JUNE '88 30° 59' 54"N, 75° 59' 54"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
55.3	3.84	292.9	1304	.11	200
64.51	3.48	279.2	1313	.10	194.3
73.7	3.25	271.3	1350	.08	188.5
82.88	3.00	266.7	1368	.06	179.6
92.05	2.70	265.7	1387	.10	206.4
101.2	2.33	267.5	1406	.13	203.9
110.5	2.10	266.3	1425	.12	193.2
119.7	1.86	262.4	1444	.10	199.3
129	1.72	258	1481	.12	193.5
138.3	1.68	255.8	1500	.12	196
147.6	1.65	252.4	1537	.11	173.7
156.9	1.65	249.6	1556	.11	181.4
183.8	1.43	241	1575	.14	190.3
193.1	1.39	238.9	1594	.12	175.6
202.4	1.33	236.2	1613	.10	175
211.7	1.32	238.2	1632	.09	185.4
239.2	1.02	242.4	1669	.10	170.3
248.6	.94	241.5	1688	.15	161.7
275.8	.75	239.2	1707	.18	175.3
285.1	.71	240.4	1726	.15	186.3
294.5	.65	244.1	1745	.14	172.7
303.9	.59	251.9	1764	.17	199.1
331.5	.58	253.6	1810	.14	194.2
340.9	.61	259.3	1848	.11	210.6
475	.27	240.6	1911	.03	173
484.4	.24	231.4	1931	.05	195.4
493.9	.23	225.4	1950	.08	203.6
530.8	.29	211	1968	.07	178
576.6	.29	207.3	1987	.04	190.6
621.6	.25	198.8	2007	.09	181.4
649.1	.25	192.3	2026	.13	177.7
658.5	.21	184.6	2045	.13	186.6
668	.20	184.3	2064	.13	207.9
677.4	.23	182.1	2120	.12	235.7
686.8	.26	188.8	2184	.08	256.7
696.2	.25	194.1	2204	.11	247.1
705.6	.26	193.7	2288	.12	255.9
733.3	.24	211.7	2353	.22	287.9
742.7	.25	214.6	2372	.31	278.8
752.2	.25	215	2573	.47	107.4
761.7	.29	220.1	2592	.49	107.8
789.3	.22	232.9	2631	.39	111.4
866.2	.07	190.1	2725	.08	179.8
902.2	.16	191.6	2865	.07	44.82
911.6	.14	191.3	3274	.07	348.8
966	.18	194.5	3312	.09	1.75
975.4	.20	193.4	3789	.06	50.16
1003	.19	200.5	4289	.12	32.62
1022	.21	193.5	4299	.13	24.54
1031	.20	186			
1041	.20	189.9			
1112	.20	200.4			
1131	.20	207.7			
1229	.15	198			
1239	.13	194.3			
1248	.14	184.6			
1285	.12	197.7			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #4
 03/1433 JUNE '87 30° 59' 10"N, 76° 00' 50"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
51.05	3.06	169.5	634	.21	227.4	1519	.08	258.8	2944	.06	354.1
60.67	2.82	190.9	643.8	.24	224.6	1538	.08	292			
70.27	2.95	203.7	653.6	.23	229.5	1558	.05	284			
79.85	3.02	211.3	663.3	.24	234.4	1577	.07	317.9			
89.43	2.88	216.4	673.1	.21	230.6	1616	.06	342.8			
99.03	2.56	221.2	682.8	.23	227.7	1635	.06	329			
108.7	2.31	224.4	692.5	.22	230	1655	.08	323.8			
118.4	2.09	226.1	702.4	.18	223.5	1693	.01	96.03			
128.1	1.97	227.2	712.2	.19	223.1	1713	.05	142.1			
137.8	1.85	229.5	722	.21	215.1	1732	.03	150.8			
147.5	1.77	231.6	731.7	.22	221.7	1752	.06	220.1			
157.2	1.68	232.4	741.5	.22	219.5	1771	.03	238.1			
166.8	1.56	234.6	751.2	.21	221	1791	.07	278.9			
195.2	1.34	234.3	761	.22	226.3	1811	.07	253.9			
223.8	1.15	235.7	789.6	.25	232.4	1859	.04	236.3			
233.5	1.13	236.2	799.4	.25	233.4	1897	.06	263.4			
243.2	1.14	235.9	837.8	.18	250.3	1917	.07	180.6			
252.9	1.08	238.3	847.6	.18	246.6	1937	.09	308.4			
262.6	1.03	240.6	857.4	.18	239	1975	.74	292.9			
272.4	.91	243.4	867.2	.16	233	1995	.07	341.3			
282.1	.77	245.1	876.9	.13	215.5	2015	.04	310.3			
291.9	.76	246.7	886.6	.15	211.8	2034	.03	42.05			
301.7	.70	247.6	896.4	.18	221.3	2054	.05	43.99			
311.4	.70	244.4	906.2	.15	221.2	2074	.05	97.2			
321.2	.69	239.7	916	.18	223.5	2093	.03	145.8			
330.9	.64	237.8	925.8	.21	223.3	2113	.07	148.9			
340.7	.58	239.5	935.5	.20	219.1	2133	.09	169.5			
350.5	.59	238	945.3	.18	216.3	2152	.06	186.1			
360.3	.56	231.4	955	.20	217.5	2172	.01	108.1			
370.1	.50	231.1	964.7	.19	227.4	2192	.04	37.45			
379.9	.50	229	974.5	.16	229.7	2212	.03	162.3			
389.6	.45	228.1	948.3	.15	232.4	2231	.03	156.8			
399.3	.40	234	994.1	.14	231.2	2279	.06	159.9			
409.1	.37	242.9	1004	.16	215.8	2298	.01	167.8			
418.9	.37	242.3	1023	.17	219.5	2318	.05	330.9			
428.7	.37	240.1	1043	.14	224.5	2338	.05	350.6			
438.5	.38	234.2	1062	.16	220.8	2358	.08	11.84			
448.3	.33	234.5	1100	.16	224.4	2397	.06	107.1			
458	.32	240.2	1120	.15	229.6	2416	.07	56.27			
467.8	.30	237.2	1140	.20	219.4	2436	.06	13.16			
477.5	.29	237.9	1159	.14	233.7	2456	.08	3.87			
487.3	.27	241.3	1170	.12	238	2476	.09	6.5			
497.1	.29	232	1188	.11	253.5	2496	.11	24.54			
506.9	.28	231.3	1208	.09	226.8	2516	.10	35.36			
516.7	.25	237	1227	.10	234.1	2535	.11	30.2			
526.5	.26	236.6	1247	.10	247.9	2584	.06	302			
536.2	.24	226.3	1267	.10	231.3	2623	.09	271.3			
546	.25	215	1286	.09	214.2	2662	.03	354.2			
555.8	.25	213.3	1324	.11	223.2	2682	.07	54.54			
565.6	.25	209.6	1363	.10	225.6	2702	.10	34.94			
575.4	.27	210.8	1401	.06	230.8	2722	.09	46.93			
585.2	.27	208.2	1421	.09	208.5	2742	.05	5.94			
594.9	.28	215.5	1441	.08	190.4	2767	.09	44.94			
604.6	.28	221.6	1460	.08	254.8	2787	.07	24.73			
614.4	.26	226.4	1480	.08	243	2807	.10	5.21			
624.2	.24	228.5	1499	.06	250	2827	.09	2.97			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #5
 03/1702 JUNE '88 30° 57' 33"N, 76° 02' 44"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
49.81	1.91	246.4	669.2	.18	219.3	1722	.12	106.5	3150	.23	58.45
59.26	1.95	241.5	678.7	.20	215.1	1741	.12	102.9	3169	.21	60.8
68.63	1.96	240.9	688.1	.20	211.8	1760	.12	114.4	3189	.21	44.86
77.97	1.97	239.2	715.8	.14	207.9	1779	.11	117.9	3209	.21	35.98
87.28	1.97	239.2	725.4	.17	199.4	1798	.11	123.3	3228	.19	48.46
96.56	1.84	241.8	734.8	.18	214.1	1845	.07	118.1	3248	.16	56.04
105.8	1.61	247	744.3	.19	214.2	1919	.05	149.1	3267	.18	53.14
115.1	1.37	249.2	772	.20	228.8	1938	.06	123	3287	.16	50.12
124.5	1.26	246.5	781.5	.19	239.6	2030	.10	72.69	3307	.11	41.74
133.9	1.24	241.8	791	.15	244.2	2049	.10	73.71	3326	.11	29.64
143.3	1.25	239.9	800.5	.14	256.5	2068	.12	86.72	3346	.12	47.86
152.5	1.25	240.7	809.9	.14	246.1	2087	.11	94.52	3365	.15	61.25
162.1	1.14	244.9	819.4	.11	227.4	2106	.07	123.7	3385	.12	59
171.5	1.09	247.4	828.8	.12	223.8	2125	.06	146.4	3405	.10	29.89
180.8	1.08	247.2	866.1	.10	217.7	2144	.05	100.4	3425	.13	37.16
190.2	1.02	247.1	875.6	.11	228.6	2163	.08	76.32	3444	.15	40.37
199.6	.95	249.8	885.1	.10	226.6	2182	.11	67.73	3464	.19	42.31
227.3	.87	242.1	894.5	.09	233.9	2201	.13	80.72	3484	.19	47.53
236.7	.86	242.4	904	.08	240.7	2221	.17	70.84	3503	.17	58.25
246.1	.81	243.2	913.4	.10	235.5	2240	.11	110.3	3542	.19	53.13
255.5	.75	245.2	959.5	.15	209.3	2259	.08	133.4	3562	.21	42.36
264.9	.74	247.8	968.9	.17	210.9	2278	.04	180.5	3582	.21	46.41
274.3	.73	248.9	978.4	.17	215.2	2297	.02	315.6	3601	.18	46.54
283.8	.64	251.4	987.8	.15	220.7	2335	.07	14.91	3640	.20	46.89
293.3	.60	248.9	997.2	.12	214.1	2354	.03	111.6	3660	.20	51.39
302.7	.50	246.5	1007	.13	218.2	2373	.08	106.5	3680	.17	50.65
312.2	.45	254.1	1026	.11	212.3	2392	.10	78.03	3699	.16	51.28
321.6	.42	257.2	1045	.14	212.3	2411	.10	81.42	3719	.15	48.52
331	.43	249.8	1063	.11	230.1	2430	.09	88	3739	.16	47.39
340.5	.44	250.8	1082	.09	215	2449	.09	68.17	3759	.15	47.57
349.9	.45	243	1101	.12	206.3	2469	.12	80.14	3779	.17	53.35
359.4	.44	238.6	1148	.10	221.9	2506	.07	62.49	3798	.18	51.77
368.9	.41	238.9	1185	.06	174.5	2525	---	42.68	3818	.18	46
378.4	.43	245.1	1222	.07	154	2545	.16	35.79	3838	.17	53.62
387.8	.44	242.6	1241	.09	163.3	2564	.15	36.66	3858	.19	48.44
397.3	.42	235	1278	.07	193.2	2583	.12	40.27	3878	.19	50.17
406.7	.37	233.2	1297	.08	179.2	2602	.08	46.53	3917	.15	47.09
416.2	.33	234.7	1316	.09	180.6	2658	.11	44.11	3937	.15	40.86
425.6	.36	238.2	1335	.08	212	2678	.15	56.99	3957	.16	39.39
435.1	.29	240.7	1372	.05	184.9	2697	.15	67.57	3977	.16	32.02
462.9	.24	236.6	1391	.08	156.4	2716	.11	66.19	3997	.18	36.15
472.4	.22	231	1410	.06	172.5	2745	.14	50.57	4036	.18	46.83
481.8	.18	240.1	1429	.06	128.7	2783	.20	48.04	4056	.16	38.37
491.2	.12	246.1	1476	.04	129	2803	.17	58.76	4115	.19	33.14
500.7	.11	248.8	1495	.04	110.1	2822	.14	42.73	4135	.19	30.69
510.2	.12	233.1	1514	.04	155.2	2841	.13	41.99	4155	.19	28.06
519.7	.13	223.7	1533	.04	122.8	2880	.11	56.17	4175	.21	33.63
547.5	.16	219.7	1551	.07	114.2	2899	.14	46.69	4195	.19	28.99
556.9	.14	225.8	1570	.10	98.52	2919	.13	47.15	4216	.21	28.18
566.4	.16	214.4	1589	.11	110.9	2938	.14	38.8	4236	.22	30.46
575.9	.17	212.2	1608	.14	108.2	2958	.15	49.91	4256	.19	31.4
585.4	.20	216.6	1627	.15	90.88	2995	.15	28.53	4266	.21	37.34
594.9	.22	211.5	1646	.14	97.34	3015	.17	45.61			
604.4	.25	208.3	1665	.14	107.1	3035	.20	49.97			
650.2	.20	218.4	1684	.15	106.1	3054	.17	55.67			
659.7	.17	212.8	1703	.13	94.68	3111	.20	59.89			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #6
 03/1746 JUNE '87 30° 58' 59"N, 76° 00' 57"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
22.71	2.02	238.3	756.3	.23	221.5	1939	.01	5.23	3691	.14	49.05
32.49	2.06	235.1	765.8	.27	221.7	2035	.13	158.3	3758	.09	42.59
42	2.11	236.2	775.3	.26	222.1	2051	.08	197.6	3805	.09	32.74
51.41	2.09	237.6	784.9	.25	221.4	2080	.09	207.9	3825	.11	48.79
60.78	2.09	238.3	794.5	.24	233.2	2121	.05	247.3	3845	.11	39.71
70.18	2.07	238.5	804.1	.25	236.9	2140	.04	243.7	3888	.10	33.13
97.92	1.65	242.6	813.6	.22	241.7	2160	.04	86.29	3908	.11	32.2
107.4	1.43	242.9	841.5	.15	257.7	2185	.07	109.9	3928	.10	26.97
116.8	1.38	241	851.1	.17	223.1	2233	.05	222	3968	.15	24.9
126.2	1.40	237.5	860.7	.16	231.9	2271	.03	202.1	3988	.12	26.53
154	1.33	239.3	870.3	.14	234.6	2290	.03	23.09	4027	.14	14.56
163.5	1.28	238.5	879.8	.13	229.6	2309	.11	7.93	4067	.15	4.66
173.1	1.20	238.5	889.3	.14	225.4	2329	.07	40.72	4087	.20	8.12
182.6	1.12	238.8	898.8	.15	219.4	2348	.04	114.8	4107	.21	13.2
192	1.07	238.7	954.1	.17	222.2	2368	.05	168.5	4128	.21	14.62
201.5	1.02	235.8	963.6	.16	218.4	2387	.08	149.5	4148	.20	18.25
210.9	1.02	233.5	973.1	.16	219.1	2415	.07	92.6	4188	.21	17.36
220.4	.96	234	982.6	.15	217.5	2437	.08	73.04	4228	.16	9.47
230	.86	239	992.1	.15	209.7	2456	.07	101			
239.5	.78	237	1002	.14	211.8	2476	.08	84.53			
249.1	.72	236.9	1021	.16	216.1	2523	.07	61.42			
258.6	.67	237.1	1030	.17	216.8	2542	.13	29.04			
268.1	.61	233.6	1068	.19	228.7	2562	.12	31.8			
277.6	.52	237.5	1087	.15	230.1	26.28	.06	339.1			
287.1	.43	245.7	1106	.14	228.8	2675	.09	86.37			
296.7	.40	259.1	1125	.14	232.9	2713	.06	21.02			
306.3	.41	251.9	1144	.17	243.5	2732	.07	12.74			
315.9	.43	249	1163	.15	243.7	2780	.08	25.12			
325.5	.42	243.8	1182	.14	247.6	2800	.07	12.68			
335	.42	246.4	1201	.09	221.9	2838	.05	1.42			
344.5	.43	244.5	1220	.13	198.2	2858	.09	10.74			
354	.44	245.5	1240	.13	219.3	2878	.12	0.55			
363.5	.47	242.5	1277	.11	194.1	2897	.09	354			
373.1	.49	237.2	1296	.12	200.1	2917	.10	6.01			
382.7	.46	236.9	1343	.09	209.2	2836	.06	7.12			
392.3	.42	237.8	1362	.09	212.2	2984	.17	358.6			
401.8	.40	236.5	1381	.11	222.9	3004	.13	10.29			
411.3	.38	239	1400	.13	219.7	3023	.14	17.18			
420.8	.31	244.4	1419	.13	197.7	3043	.12	41.49			
430.3	.28	247	1438	.14	194.6	3081	.13	29.13			
439.9	.26	244	1457	.07	212.5	3101	.12	31.59			
477.5	.23	236.2	1476	.06	204.6	3121	.14	18.94			
487	.19	236	1495	.07	205.1	3140	.14	16.94			
496.5	.20	240.8	1514	.06	161	3160	.17	19.4			
569.6	.29	223.6	1533	.04	151.2	3180	.18	15.51			
579.2	.27	221.9	1553	.05	137.1	3200	.15	18.98			
607.1	.27	221.1	1572	.07	160	3238	.11	22.82			
616.7	.26	218.6	1609	.06	119.2	3258	.14	358.6			
626.2	.25	213.4	1628	.06	142.5	3325	.13	349.2			
635.7	.23	213	1647	.09	170	3384	.11	3.58			
645.2	.20	215.7	1666	.08	158.1	3403	.14	10.12			
654.8	.18	214.3	1704	.10	178.6	3452	.11	23.27			
664.4	.18	217.7	1742	.02	331	3511	.12	29.35			
674	.18	224.6	1853	.05	195	3530	.12	27.26			
683.5	.17	220.1	1900	.03	209.9	3414	.13	40.69			
746.8	.26	231.5	1919	.02	86.94	3651	.11	38.84			

BROADBAND '87
 USNS LYNCH
 CURRENT METER DATA - PROFILE #7
 03/1900 JUNE '87 30° 59' 34"N, 76° 00' 09"W

DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)	DEPTH (FT)	SPEED (KNTS)	DIR (DEG)
75.73	5.48	273.3	730.4	.23	205.9	2329	.09	135.9	4281	.13	50.34
85.01	4.60	273.5	868.6	.12	188.3	2349	.05	151.9	4351	.13	42.48
94.28	3.95	273.8	878	.12	178.9	2368	.04	187.3	4371	.11	55.74
103.5	3.35	275.3	887.5	.15	184.7	2388	.01	268	4411	.12	45.75
112.8	2.84	276.2	897	.17	177.8	2454	.12	101.4	4432	.14	48.81
122.1	2.42	274.7	906.4	.17	180.5	2473	.11	82.58	4471	.14	49.09
131.3	2.17	268.5	915.9	.15	185	2493	.12	56.28	4512	.14	38.47
140.7	1.97	263.6	925.3	.13	197.6	2513	.14	62.24	4532	.15	41.77
150	1.85	260.7	934.8	.12	205.2	2561	.06	354.2	4553	.18	27.58
159.4	1.77	257.5	944.4	.13	193.8	2581	.07	351.9	4573	.16	29.2
168.7	1.65	256.7	953.9	.16	197.5	2601	.01	76.37	4613	.16	17.35
178.1	1.46	258.1	963.4	.16	188.6	2658	.09	79	4634	.14	29.28
187.4	1.32	252.6	972.9	.17	193.6	2705	.05	149.6	4655	.16	30.94
223.7	1.10	242.9	982.3	.19	198.1	2725	.02	53.4	4675	.12	24.79
233	.98	243.2	991.8	.16	191.6	2764	.03	56.1	4762	.14	34.89
242.5	.87	242.5	1020	.16	185.7	2784	.05	75.68			
251.9	.83	238.5	1039	.21	187.1	2803	.05	16.51			
279.5	.68	231.1	1085	.19	182.4	2823	.11	40.27			
288.9	.61	231.3	1104	.16	190	2843	.05	49.6			
298.3	.50	237.8	1150	.18	209.9	2863	.09	79.69			
307.7	.41	241.4	1169	.15	213.7	2930	.08	38.53			
317.1	.38	239.6	1179	.14	217.3	2950	.14	11.14			
326.6	.38	242.1	1216	.09	201.6	2969	.09	47.57			
336.1	.36	240.9	1235	.13	174.7	2989	.09	48.04			
345.6	.33	249.5	1254	.17	176.7	3009	.12	70.61			
355	.35	250.7	1273	.16	166.9	3058	.12	61.67			
364.5	.39	246.3	1355	.10	160.3	3097	.10	39.27			
373.9	.38	243.7	1411	.14	175.2	3136	.16	36.12			
383.3	.39	233.2	1466	.12	176.4	3183	.11	39.5			
392.8	.42	222.7	1485	.12	168.4	3203	.09	46.52			
402.2	.43	223.3	1504	.13	168.8	3223	.05	4.79			
439.2	.21	237.4	1523	.17	157.9	3262	.09	357.7			
448.7	.22	232.6	1542	.14	154.2	3302	.05	44.59			
494.3	.17	226	1589	.14	155.6	3322	.10	29.96			
503.8	.20	206.9	1608	.13	159.8	3342	.11	32.78			
513.3	.26	202.1	1646	.13	158.3	3362	.15	38.02			
522.8	.29	207.7	1665	.16	155	3382	.11	57.2			
532.2	.28	207.1	1684	.18	162.2	3431	.08	63.05			
541.7	.27	209.3	1722	.16	174.7	3451	.13	61.73			
551.1	.26	204.5	1741	.16	170.5	3501	.12	77.29			
560.6	.25	204.8	1760	.15	178.9	3521	.11	69.52			
570	.26	204.5	1816	.15	170.8	3541	.08	106.2			
579.4	.25	205.8	1836	.10	173.5	3677	.08	65			
588.9	.24	205.2	1855	.05	147.1	3746	.11	82.91			
598.4	.24	207	1892	.09	140.4	3766	.09	66.09			
607.9	.23	200.1	1912	.07	162.9	3786	.10	74.88			
617.4	.22	202.4	1931	.10	175.9	3807	.10	65.17			
626.8	.21	199.7	2034	.18	160.6	3874	.12	48.89			
636.3	.23	199.4	2053	.12	174.3	3914	.10	54.43			
645.7	.19	192.3	2091	.07	182	3935	.10	54.14			
655.1	.18	188.6	2111	.04	181.2	3975	.12	62.51			
683.1	.24	184.9	2149	.07	136.6	3995	.13	51.93			
692.6	.24	184.2	2168	.07	192.6	4054	.18	42.12			
702.1	.21	188.5	2223	.04	88.75	4153	.14	42.81			
711.5	.22	191.8	2262	.04	69.95	4173	.13	42.96			
721	.25	200.7	2310	.10	133.1	4261	.13	46.77			

Distribution List

Asst Secretary of the Navy
(Research, Engineering & Systems)
Navy Department
Washington DC 20350-1000

Chief of Naval Operations
Navy Department (OP-02)
Washington DC 20350-2000

Chief of Naval Operations
Navy Department (OP-71)
Washington DC 20350-2000

Director
National Ocean Data Center
WSC1 Room 103
6001 Executive Blvd.
Attn: G. W. Withee
Rockville MD 20852

Chief of Naval Operations
Navy Department (OP-987)
Washington DC 20350-2000

Oceanographer of the Navy
Chief of Naval Operations
Attn: OP-096
U.S. Naval Observatory
34th & Mass Ave., NW
Washington DC 20390-1800

Commander
Naval Air Development Center
Warminster PA 18974-5000

Commanding Officer
Naval Coastal Systems Center
Panama City FL 32407-5000

Commander
Space & Naval Warfare Sys Com
Washington DC 20363-5100

Commanding Officer
Naval Environmental Prediction
Research Facility
Monterey CA 93943-5006

Commander
Naval Facilities Eng Command
Naval Facilities Eng Command Headquarters
200 Stovall St.
Alexandria VA 22332-2300

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 100
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 125L (13)
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 125P (1)
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 105
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 115
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 200
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Ocean R&D Activity
Attn: Code 300
Stennis Space Center MS 39529-5004

Commanding Officer
Naval Research Laboratory
Washington DC 20375

Commander
Naval Oceanography Command
Stennis Space Center MS 39529-5000

Commanding Officer
Fleet Numerical Oceanography Center
Monterey CA 93943-5005

Commanding Officer
Naval Oceanographic Office
Stennis Space Center MS 39522-5001

Commander
Naval Ocean Systems Center
San Diego CA 92152-5000

Commanding Officer
ONR Branch Office
Box 39
FPO New York NY 09510-0700

Commander
David W. Taylor Naval Research Center
Bethesda MD 20084-5000

Commander
Naval Surface Weapons Center
Dahlgren VA 22448-5000

Commanding Officer
Naval Underwater Systems Center
Newport RI 02841-5047

Superintendent
Naval Postgraduate School
Monterey CA 93943

Director of Navy Laboratories
Rm 1062, Crystal Plaza Bldg 5
Department of the Navy
Washington DC 20360

Officer in Charge
New London Laboratory
Naval Underwater Sys Cen Det
New London CT 06320

Director
Office of Naval Research
Attn: Code 10
800 N. Quincy St.
Arlington VA 22217-5000

Director
Woods Hole Oceanographic Inst
P.O. Box 32
Woods Hole MA 02543

University of California
Scripps Institute of Oceanography
P.O. Box 6049
San Diego CA 92106

Officer in Charge
Naval Surface Weapons Center Det
White Oak Laboratory
10901 New Hampshire Ave.
Attn: Library
Silver Spring MD 20903-5000

Commanding Officer
Fleet Anti-Sub Warfare Training Center, Atlantic
Naval Station
Norfolk VA 23511-6495

Brooke Farquhar
NORDA Liaison Office
Crystal Plaza #5, Room 802
2211 Jefferson Davis Hwy.
Arlington VA 22202-5000

Director
Defense Mapping Agency Sys Cen
Attn: SGWN
12100 Sunset Hill Rd. #200
Reston VA 22090-3207

NORDA
Code 125 EX
Stennis Space Center MS 39529-5004
(Unlimited only)

Director
Office of Naval Technology
Attn: Dr. P. Selwyn, Code 20
800 N. Quincy St.
Arlington VA 22217-5000

Director
Office of Naval Technology
Attn: Dr. C. V. Votaw, Code 234
800 N. Quincy St.
Arlington VA 22217-5000

Director
Office of Naval Technology
Attn: Dr. M. Briscoe, Code 228
800 N. Quincy St.
Arlington VA 22217-5000

Director
Office of Naval Research
Attn: Dr. E. Hartwig, Code 112
800 N. Quincy St.
Arlington VA 22217-5000

Director
Office of Naval Research
Attn: Code 12
800 N. Quincy St.
Arlington VA 22217-5000

Director
Office of Naval Research
Attn: Dr. E. Silva, Code 10D/10P
800 N. Quincy St.
Arlington VA 22217-5000

Chief of Naval Operations
Navy Department (OP-0962X)
Attn: Mr. R. Feden
Washington DC 20350-2000

Commander
Naval Sea Systems Command
Naval Sea Systems Command Headquarters
Washington DC 20362-5101

Commanding Officer
Naval Civil Engineering Laboratory
Port Hueneme CA 93043

Commander
Naval Air Systems Command
Naval Air Systems Command Headquarters
Washington DC 20361-0001

Pennsylvania State University
Applied Research Laboratory
P.O. Box 30
State College PA 16801

University of Texas at Austin
Applied Research Laboratories
P.O. Box 8029
Austin TX 78713-8029

Johns Hopkins University
Applied Physics Laboratory
Johns Hopkins Rd.
Laurel MD 20707

University of Washington
Applied Physics Laboratory
1013 Northeast 40th St.
Seattle WA 98105

U243286